



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

दूरभाष : 0771-2262802 (अकादमिक विभाग), 0771-2262540 (कुलसचिव कार्यालय)

क्रमांक 538/अका./2019

रायपुर, दिनांक 22/06/2019

प्रति,

प्राचार्य/प्राचार्या

संबद्ध समस्त महाविद्यालय

पं. रविशंकर शुक्ल विश्वविद्यालय

रायपुर (छ.ग.)

विषय :- स्नातक स्तर भाग-एक के पाठ्यक्रम बाबत।

संदर्भ :- संयुक्त संचालक, उच्च शिक्षा का पत्र क्रमांक 2456/315/आउशि/सम/2019, दिनांक 16.05.2019

महोदय/महोदया,

विषयांतर्गत संदर्भित पत्र के माध्यम से प्राप्त स्नातक स्तर भाग-एक के निम्नलिखित कक्षा/विषयों के परिवर्तित/संशोधित पाठ्यक्रम शिक्षा सत्र 2019-20 से प्रभावशील किया जाता है-

1. बी.ए. - आधार पाठ्यक्रम-हिन्दी भाषा, राजनीति, अर्थशास्त्र, संगीत, दर्शनशास्त्र, मानवविज्ञान, गणित, इतिहास, हिन्दी साहित्य, समाजशास्त्र, भूगोल, मनोविज्ञान, संस्कृत, सांख्यिकी, प्राचीन भारतीय इतिहास।
2. बी.कॉम. - आधार पाठ्यक्रम-हिन्दी भाषा, वाणिज्य।
3. बी.एस.सी. - जैविकी, मानवविज्ञान, बायोटेक्नोलॉजी, कम्प्यूटर साइंस, गणित, भौतिकशास्त्र, प्राणीशास्त्र, सूक्ष्मजीव विज्ञान, वनस्पतिशास्त्र, भूविज्ञान, इलेक्ट्रॉनिक्स, रसायन, सांख्यिकी, भूगोल, आधार पाठ्यक्रम-हिन्दी भाषा।
4. बी.एस.सी. (गृह विज्ञान) - आधार पाठ्यक्रम-हिन्दी भाषा, एवं गृहविज्ञान।

उपरोक्त विषयों को शिक्षा सत्र 2019-20 से संशोधित रूप में स्नातक स्तर भाग-एक के लिए प्रभावशील किया जाता है, स्नातक स्तर भाग-दो एवं तीन के पाठ्यक्रम यथावत् रहेंगे।

अतः आपसे अनुरोध है कि पाठ्यक्रम परिवर्तन/संशोधन से महाविद्यालय के शिक्षकों एवं छात्र-छात्राओं को अवगत कराने का कष्ट करेंगे।

संलग्न :- उपरोक्तानुसार।

21-06-19

विशेष कर्तव्यस्थ अधिकारी (अका.)

क्रमशः2



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)


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पृ. क्र. 539 / अका. / 2019
प्रतिलिपि :-

रायपुर, दिनांक 22/06/2019

1. संयुक्त संचालक, उच्च शिक्षा को पत्र क्रमांक 2456/315/आउशि/सम/2019, दिनांक 16.05.2019 के परिपेक्ष्य में सूचनार्थ।
2. उपकुलसचिव परीक्षा, सहायक कुलसचिव गोपनीय विभाग,
3. कुलपति जी के सचिव/कुलसचिव के निज सहायक, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर को सूचनार्थ।


वरिष्ठ अधीक्षक (अका.)

संशोधित पाठ्यक्रम
बी.ए./बी.एस-सी./बी.कॉम./बी.एच.एस.-सी.
भाग - एक (आधार पाठ्यक्रम)
प्रश्न पत्र- प्रथम (हिन्दी भाषा)
(पेपर कोड -0101)

पूर्णांक- 75

नोट :-

1. प्रश्न पत्र 75 अंक का होगा।
2. प्रश्न पत्र अनिवार्य होगा।
3. इसके अंक श्रेणी निर्धारण के लिए जोड़े जायेंगे।
4. प्रत्येक इकाई के अंक समान होंगे।

पाठ्य विषय :-

इकाई-1

- क. पल्लवन, पत्राचार, अनुवाद, पारिभाषिक शब्दावली एवं हिंदी में पदनाम
- ख. ईदगाह (कहानी) - मुंशी प्रेमचंद

इकाई-2

- क. शब्द शुद्धि, वाक्य शुद्धि, शब्द ज्ञान-पर्यायवाची शब्द, विलोम शब्द, अनेकार्थी शब्द, समश्रुत शब्द, अनेक शब्दों के लिए एक शब्द एवं मुहावरे-लोकोक्तियाँ
- ख. भारत वंदना (कविता)- सूर्यकान्त त्रिपाठी निराला

इकाई-3

- क. देवनागरी लिपि - नामकरण, स्वरूप एवं देवनागरी लिपि की विशेषताएँ, हिंदी अपठित गद्यांश, संक्षेपण, हिंदी में संक्षिप्तीकरण
- ख. भोलाराम का जीव (व्यंग्य) - हरिशंकर परसाई

इकाई-4

- क. कम्प्यूटर का परिचय एवं कम्प्यूटर में हिंदी का अनुप्रयोग
- ख. शिकागो से स्वामी विवेकानंद का पत्र

इकाई-5

- क. मानक हिन्दी भाषा का अर्थ, स्वरूप, विशेषताएँ, मानक, उपमानक, अमानक भाषा
- ख. सामाजिक गतिशीलता - प्राचीन काल, मध्यकाल, आधुनिक काल

मूल्यांकन योजना :-

प्रत्येक इकाई से एक-एक प्रश्न पूछा जाएगा। प्रत्येक प्रश्न में आंतरिक विकल्प होगा। प्रत्येक प्रश्न के 15 अंक होंगे। प्रत्येक प्रश्न के दो भाग 'क' और 'ख' होंगे एवं अंक क्रमशः 8 एवं 7 होंगे। प्रश्न-पत्र का पूर्णांक 75 निर्धारित है।

पाठ्यक्रम संशोधन का औचित्य :-

व्याकरण के बुनियादी ज्ञान, संप्रेषण, कौशल, सामाजिक संदेश एवं भाषायी दक्षता को ध्यान में रखते हुए यह पाठ्यक्रम प्रस्तावित है।

अध्यक्ष— हिंदी अध्ययन मंडल

आधार पाठ्यक्रम

FOUNDATION COURSE

PAPER - II

ENGLISH LANGUAGE (Paper Code-0102)

M.M. 75

UNIT-1 Basic Language skills : Grammar and Usage.

Grammar and Vocabulary based on the prescribed text.

To be assessed by objective / multiple choice tests.

(Grammar - 20 Marks

Vocabulary - 15 Marks)

UNIT-2 Comprehension of an unseen passage.

05

This should imply not only (a) an understanding of the passage in question, but also (b) a grasp of general language skills and issues with reference to words and usage within the passage and (c) the Power of short independent composition based on themes and issues raised in the passage.

To be assessed by both objective multiple choice and short answer type tests.

UNIT-3 Composition : Paragraph writing

10

UNIT-4 Letter writing (The formal and one Informal)

10

Two letters to be attempted of 5 marks each. One formal and one informal.

UNIT-5 Texts :

15

Short prose pieces (Fiction and not fiction) short poems, the pieces should cover a range of authors, subjects and contexts. With poetry if may sometimes be advisable to include pieces from earlier periods, which are often simpler than modern examples. In all cases, the language should be accessible (with a minimum of explanation and reference to standard dictionaries) to the general body of students schooled in the medium of an Indian language.

Students should be able to grasp the contents of each piece; explain specific words, phrases and allusions; and comment on general points of narrative or argument. Formal Principles of Literary criticism should not be taken up at this stage.

To be assessed by five short answers of three marks each.

BOOKS PRESCRIBED -

English Language and Indian Culture - Published by M.P. Hindi Granth Academy Bhopal.

Part - I

SYLLABUS FOR ENVIRONMENTAL STUDIES AND HUMAN RIGHTS

(Paper code-0828)

MM. 75

इन्वारमेंटल साईंसेस के पाठ्यक्रम को स्नातक स्तर भाग-एक की कक्षाओं में विश्वविद्यालय अनुदान आयोग के निर्देशानुसार अनिवार्य रूप से शिक्षा सत्र 2003-2004 (परीक्षा 2004) से प्रभावशील किया गया है। स्वशासी महाविद्यालयों द्वारा भी अनिवार्य रूप से अंगीकृत किया जाएगा।

भाग 1, 2 एवं 3 में से किसी भी वर्ष में पर्यावरण प्रश्न-पत्र उत्तीर्ण करना अनिवार्य है। तभी उपाधि प्रदाय योग्य होगी।

पाठ्यक्रम 100 अंकों का होगा, जिसमें से 75 अंक सैद्धांतिक प्रश्नों पर होंगे एवं 25 अंक क्षेत्रीय कार्य (Field Work) पर्यावरण पर होंगे।

सैद्धांतिक प्रश्नों पर अंक - 75 (सभी प्रश्न इकाई आधार पर रहेंगे जिसमें विकल्प रहेगा)

(अ) लघु प्रश्नोंत्तर - 25 अंक

(ब) निबंधात्मक - 50 अंक

Field Work - 25 अंकों का मूल्यांकन आंतरिक मूल्यांकन पद्धति से कर विश्वविद्यालय को प्रेषित किया जावेगा। अभिलेखों की प्रायोगिक उत्तर पुस्तिकाओं के समान संबंधित महाविद्यालयों द्वारा सुरक्षित रखेंगे।

उपरोक्त पाठ्यक्रम से संबंधित परीक्षा का आयोजन वार्षिक परीक्षा के साथ किया जाएगा।

पर्यावरण विज्ञान विषय अनिवार्य विषय है, जिसमें अनुत्तीर्ण होने पर स्नातक स्तर भाग-एक के छात्र/छात्राओं को एक अन्य विषय के साथ पूरक की पात्रता होगी। पर्यावरण विज्ञान के

सैद्धांतिक एवं फील्ड वर्क के संयुक्त रूप से 33% (तैंतीस प्रतिशत) अंक उत्तीर्ण होने के लिए अनिवार्य होंगे।

स्नातक स्तर भाग-एक के समस्त नियमित/भूतपूर्व/अमहाविद्यालयीन छात्र/छात्राओं को अपना फील्ड वर्क सैद्धांतिक परीक्षा की समाप्ति के पश्चात् 10 (दस) दिनों के भीतर संबंधित महाविद्यालय/परीक्षा केन्द्र में जमा करेंगे एवं महाविद्यालय के प्राचार्य/केन्द्र अधीक्षक, परीक्षकों की नियुक्ति के लिए अधिकृत रहेंगे तथा फील्ड वर्क जमा होने के सात दिनों के भीतर प्राप्त अंक विश्वविद्यालय को भेजेंगे।

UNIT-I THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

Definition, Scope and Importance

Natural Resources:

Renewable and Nonrenewable Resources

- (a) Forest resources: Use and over-exploitation, deforestation, Timber extraction, mining, dams and their effects on forests and tribal people and relevant forest Act.
- (b) Water resources: Use and over-utilization of surface and ground water, floods drought, conflicts over water, dams benefits and problems and relevant Act.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
- (d) food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging , salinity.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.
- (f) Land resources: Land as a resource, land degradation, man induced landslides soil erosion and desertification.

(12 Lecture)

UNIT-II ECOSYSTEM

(a) Concept, Structure and Function of and ecosystem

- Producers, consumers and decomposers.
- Energy flow in the ecosystem

- Ecological succession
- Food chains, food webs and ecological pyramids.
- Introduction, Types, Characteristics Features, Structure and Function of Forest, Grass, Desert and Aquatic Ecosystem.

(b) Biodiversity and its Conservation

- Introduction - Definition: genetic. species and ecosystem diversity
- Bio-geographical classification of India.
- Value of biodiversity: Consumptive use. productive use, social ethics, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as mega-diversity nation.
- Hot spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wild life conflict.
- Endangered and endemic species of India.
- Conservation of biodiversity: In situ and Ex-situ conservation of biodiversity.

(12 Lecture)

UNIT- III

(a) Causes, effect and control measures of

- Air water, soil, marine, noise, nuclear pollution and Human population.
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Disaster Management : floods, earthquake, cyclone and landslides.

(12 Lecture)

(b) Environmental Management

- From Unsustainable to sustainable development.
- Urban problems related to energy.

- Water conservation, rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns.
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.
- Wasteland reclamation
- Environment protection Act: Issues involved in enforcement of environmental legislation.
- Role of Information Technology in Environment and Human Health.

UNIT- IV

General background and historical perspective- Historical development and concept of Human Rights, Meaning and definition of Human Rights, Kind and Classification of Human Rights.

Protection of Human Rights under the UNO Charter, protection of Human Rights under the Universal Declaration of Human Rights, 1948.

Convention on the Elimination of all forms of Discrimination against women.

Convention on the Rights of the Child, 1989.

UNIT- V

Impact of Human Rights norms in India, Human Rights under the Constitution of India, Fundamental Rights under the Constitution of India, Directive Principles of State policy under the Constitution of India, Enforcement of Human Rights in India.

Protection of Human Rights under the Human Rights Act, 1993- National Human Rights Commission, State Human Rights Commission and Human Rights court in India.

Fundamental Duties under the Constitution of India.

Reference/ Books Recommended

1. SK Kapoor- Human rights under International Law and Indian Law.
2. HO Agrawal- Internation Law and Human Rights
3. एस.के. कपूर – मानव अधिकार
4. जे.एन. पान्डेय – भारत का संविधान
5. एम.डी. चतुर्वेदी – भारत का संविधान
6. J.N.Pandey - Constitutional Law of India
7. Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner

8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India, Email: mapin@icenet.net(R)
9. Bruinner R.C. 1989, Hazardous Waste Incineration. McGraw Hill Inc.480p
10. Clark R.S. Marine pollution, Clanderson press Oxford (TB)
11. Cuningham, W.P.Cooper. T.H.Gorhani, E & Hepworth. M.T,200
12. Dr. A.K.- Environmental Chemistry. Wiley Eastern Ltd.
13. Down to Earth, Center for Science and Environment (R)
14. Gloick, H.P. 1993 Water in crisis. pacific institute for studies in Deve. Environment & Security. Stockholm Eng. Institute. Oxford University, Press. m 473p.
15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)
16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p
17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p
18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p
19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)
20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)
21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p
22. Rao M.N. & Datta, A.K. 1987, Waste water treatment. Oxford & IBH pub.co.pvt. Ltd 345p
23. Sharma B.K. 2001, Environmental chemistry, Goel pub. House, Meerut
24. Survey of the Environment, The Hidu(M)
25. Townsend C. Harper J. And Michael Begon, Essentials of Ecology, Blackwell Science(TB)
26. Trivedi R.K.Handbook of Environment Laws, Rules, Guidelines, Compliances and Standards, Vol land II, Environment Media(R)
27. Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science publication (TB)
28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

प्रपत्र

विषय :- संस्कृत (कला संकाय)

बी.ए. प्रथम वर्ष

प्रथम प्रश्नपत्र

प्रश्न-पत्र का नाम – नाटक, व्याकरण और अनुवाद

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
<p>इकाई -3</p> <p>1 सुबन्त (शब्दरूप) – राम, गति, भानु, पितृ, करिन्, भूभृत्, कर्तृ, चन्द्रमस्, भगवत्, आत्मन्, लता, मति, नदी, धेनु, वधू, मातृ, फल, वारि मधु, वाच्, रात्रि, सर्व, तद्, एतद्, यद्, इदम्, जगत् अस्मद्, युष्मद्, एक, द्वि, त्रि, चतुर्</p> <p>तिङन्त (धातुरूप) – भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लोट्, लङ् और विधिलिङ् लकारों के रूप ।</p>	<p>इकाई -3</p> <p>1 सुबन्त (शब्दरूप) – राम, मुनि, भानु, पितृ, करिन्, कर्तृ, आत्मन्, लता, मति, नदी, मातृ, फल, सर्व, तद्, एतद्, यद्, इदम्, अस्मद्, युष्मद् ।</p> <p>2 तिङन्त (धातुरूप) – भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप</p> <p>अथवा</p> <p>3. अपठित गद्यांश पर आधारित प्रश्न</p>	<p>छत्तीसगढ़ लोक सेवा आयोग के पाठ्यक्रम के अनुरूप बिन्दु क्रं 3 (अपठित गद्यांश पर आधारित प्रश्न) का समावेश करने से छात्रों को इसका अभ्यास, लाभ मिल सकेगा ।</p> <p>नोट – पाठ्यक्रम के सन्तुलन को ध्यान में रखते हुए नवीन पाठ्यक्रम में किंचित् पाठ्यसामग्री सम्पादित की गई है तथा समस्त पाँचों इकाई के लिए समान रूप से 15 अंक निर्धारित किये गये हैं ।</p>

प्रपत्र

विषय :- संस्कृत (कला संकाय)

बी.ए. प्रथम वर्ष

द्वितीय प्रश्नपत्र

प्रश्नपत्र का नाम – गद्य, कथा एवं साहित्येतिहास

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
इकाई -4 संस्कृत नाटक एवं कथा साहित्य का इतिहास	इकाई -4 वैदिक एवं पौराणिक साहित्य का सामान्य परिचय (वेद, ब्राह्मण, आरण्यक, उपनिषद्, वेदांगों एवं पुराणों का संक्षिप्त परिचय)	नेट परीक्षा के पाठ्यक्रम की दृष्टि से नवीन पाठ्यसामग्री के समावेश से छात्र लाभान्वित होंगे । (वर्तमान पाठ्यसामग्री को द्वितीय वर्ष की पाठ्यसामग्री में सम्मिलित किया गया है ।)
इकाई -5 निम्नलिखित कवियों का परिचय – महाकवि कालिदास, महाकवि माघ, महाकवि भारवि, महाकवि श्रीहर्ष, महाकवि अम्बिकादत्त व्यास	इकाई -5 निम्नलिखित कवियों का परिचय – महाकवि कालिदास, महाकवि माघ, महाकवि भारवि, महाकवि श्रीहर्ष, बाणभट्ट, शूद्रक, विशाखदत्त, भवभूति ।	समस्त पाँचों इकाई के लिए समान रूप से 15 अंक निर्धारित किये गये हैं । तथा पाठ्यक्रम को सन्तुलित करने पाठ्यसामग्री (चार कवि-परिचय) का समावेश किया गया है ।

सत्र 2018-19 से प्रस्तावित (संशोधित दिनांक 20.08.2018)

बी.ए. प्रथम वर्ष

संस्कृत साहित्य

प्रथम प्रश्नपत्र

टीप – बी.ए. प्रथम वर्ष में संस्कृत साहित्य के दो प्रश्न-पत्र होंगे एवं दोनों प्रश्न-पत्र 75-75 अंकों के होंगे ।

नाटक, व्याकरण और अनुवाद

पूर्णांक – 75

इकाई -1	स्वप्नवासवदत्तम् – व्याख्या	अंक – 15
इकाई -2	स्वप्नवासवदत्तम् – समीक्षात्मक प्रश्न	अंक – 15
इकाई -3	1. सुबन्त (शब्दरूप) – राम, मुनि, भानु, पितृ, करिन्, कर्तृ, आत्मन्, लता, मति, नदी, धेनु, मातृ, फल, वारि, सर्व, तद्, एतद्, यद्, इदम्, अस्मद्, युष्मद् । 2. तिङन्त (धातुरूप) – भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप 3. अपठित गद्यांश पर आधारित प्रश्न	अंक – 15

नोट- शब्द रूप एवं धातु रूप के विकल्प के रूप में अपठित गद्यांश पर आधारित प्रश्न भी पूछे जा सकते हैं ।

इकाई -4	प्रत्याहार, संज्ञा, सन्धि और विभक्त्यर्थ	अंक – 15
इकाई -5	हिन्दी से संस्कृत में अनुवाद	अंक – 15

अनुशासित ग्रन्थ –

1. रचनानुवाद कौमुदी – डा. कपिलदेव द्विवेदी
2. संस्कृतस्य व्यावहारिकस्वरूपम् – डा. नरेन्द्र, श्री अरविन्द आश्रम
3. संस्कृतव्याकरण – श्रीधर वसिष्ठ
4. संस्कृत में अनुवाद कैसे करें – उमाकान्त मिश्र शास्त्री, प्रकाशक – भारती भवन
5. लघु सिद्धान्त कौमुदी – श्री महेश सिंह कुशवाहा, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी

सत्र 2018-19 से प्रस्तावित

बी.ए. प्रथम वर्ष

संस्कृत साहित्य

द्वितीय प्रश्नपत्र

गद्य, कथा एवं साहित्येतिहास

पूर्णांक - 75

इकाई -1	शुकनासोपदेश: - व्याख्या	अंक - 15
इकाई -2	हितोपदेश: (मित्रलाभ:) - व्याख्या	अंक - 15
इकाई -3	शुकनासोपदेश एवं हितोपदेश के समीक्षात्मक प्रश्न	अंक - 15
इकाई -4	वैदिक एवं पौराणिक साहित्य का सामान्य परिचय (वेद, ब्राह्मण, आरण्यक, उपनिषद्, वेदांगों एवं पुराणों का संक्षिप्त परिचय)	अंक - 15
इकाई -5	निम्नलिखित कवियों का परिचय - महाकवि कालिदास, भारवि, माघ, श्रीहर्ष, विशाखदत्त, बाणभट्ट, शूद्रक, विशाखदत्त, भवभूति ।	अंक - 15

अनुशंसित ग्रन्थ -

1. शुकनासोपदेश - प्रकाशक - मोतीलाल बनारसीदास, वाराणसी
2. हितोपदेश (मित्रलाभ) - प्रकाशक - मोतीलाल बनारसीदास, वाराणसी
3. वैदिक साहित्य और संस्कृति - आचार्य बलदेव उपाध्याय
4. संस्कृत साहित्य का इतिहास - आचार्य बलदेव उपाध्याय
5. संस्कृत साहित्य का अभिनव इतिहास - डा. राधावल्लभ त्रिपाठी, वि.वि. प्रकाशन, सागर, म.प्र.

इतिहास अध्ययनशाला
पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर
केन्द्रीय अध्ययन मण्डल की बैठक (इतिहास)

विषय— इतिहास

प्रश्न पत्र — प्रथम

संकाय— सामाजिक विज्ञान

कक्षा का नाम — बी.ए. प्रथम वर्ष

प्रश्न पत्र का नाम — भारत का इतिहास, प्रारंभ से 1206 ई. तक
नवीन संशोधित पाठ्यक्रम

इकाई—1

1. भारत की भौगोलिक संरचना
2. भारतीय इतिहास के स्त्रोतों का सर्वेक्षण
3. पूर्ण पाषाण काल एवं उत्तर पाषाण काल
4. हड़प्पा सभ्यता— निर्माता, प्रसार, नगर योजना, राजनीतिक, सामाजिक, आर्थिक संरचना

इकाई—2

5. ऋग्वैदिक काल — राजनीतिक, सामाजिक, आर्थिक
6. ईसा पूर्व छठवीं शताब्दी का भारत — महाजनपद काल
7. जैन एवं बौद्ध धर्म
8. सिकंदर का आक्रमण और उसका प्रभाव

इकाई—3

9. चंद्रगुप्त मौर्य एवं अशोक
10. मौर्य प्रशासन, कला एवं संस्कृति, अशोक का धम्म
11. मौर्योत्तरकाल — शुंग, कुषाण एवं सातवाहन
12. संगमयुग— साहित्य, संस्कृति, चोल एवं पाण्ड्य

इकाई—4

13. गुप्तयुग— समुद्रगुप्त की विजयें एवं चंद्रगुप्त द्वितीय, प्रशासन, आर्थिक, सामाजिक, सांस्कृतिक दशा
14. राजपूतों की उत्पत्ति एवं प्रशासनिक तथा सामाजिक विशेषताएं
15. पल्लव, चालुक्य, वर्धन, पाल, राष्ट्रकुट
16. भारत का दक्षिण पूर्व एशिया एवं श्रीलंका से संबंध

इकाई-5

17. मोहम्मद बिन कासिम, महमूद गजनवी एवं मुहम्मद गोरी
का आक्रमण
18. छत्तीसगढ़ का परिचय- नामकरण एवं भौगोलिक स्थिति
19. छत्तीसगढ़ के प्रमुख क्षेत्रीय राजवंश-पाण्डुवंश, शरभपुरीय,
20. छत्तीसगढ़ के प्रमुख राजवंश- नलवंश, छिन्दक नागवंश,
21. दक्षिण कोसल के कल्युरी वंश, राजनीतिक एवं प्रशासनिक
व्यवस्था

इतिहास अध्ययनशाला
पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर
केन्द्रीय अध्ययन मण्डल की बैठक (इतिहास)

विषय— इतिहास

प्रश्न पत्र — द्वितीय

संकाय— सामाजिक विज्ञान

कक्षा का नाम — बी.ए. प्रथम वर्ष

प्रश्न पत्र का नाम — विश्व का इतिहास—1453 ई. से 1890 ई. तक

नवीन संशोधित पाठ्यक्रम

इकाई—1

1. यूरोप में आधुनिक युग की विशेषतायें, पुनर्जागरण
2. धर्म सुधार एवं प्रति धर्म सुधार आंदोलन
3. राष्ट्रीय राज्यों का उदय स्पेन, फ्रांस
4. राष्ट्रीय राज्यों का उदय इंग्लैण्ड, रूस

इकाई—2

5. वाणिज्यवाद, उपनिवेशवाद
6. औद्योगिक क्रान्ति
7. इंग्लैण्ड में गृह युद्ध : घटनाएँ, कारण एवं परिणाम
8. गौरव पूर्ण क्रांति (1688)

इकाई—3

9. अमेरिका का स्वतंत्रता संग्राम
10. फ्रांस की क्रान्ति के कारण एवं प्रभाव
11. नेपोलियन युग
12. विएना कांग्रेस

इकाई—4

13. अनुदारवाद— मैटरनिक, आंतरिक एवं विदेश नीति
14. यूरोप में 1830 ई. एवं 1848 ई. की क्रान्ति
15. इंग्लैण्ड में उदारवाद 1832 एवं 1867 ई. का सुधार अधिनियम
16. पूर्वी समस्या— कारण, क्रीमिया युद्ध, बर्लिन सम्मेलन

इकाई—5

17. इटली का एकीकरण
18. जर्मनी का एकीकरण
19. बिस्मार्क की गृह नीति
20. बिस्मार्क की विदेश नीति

**नवीन संशोधित पाठ्यक्रम
बी.ए. प्रथम वर्ष , इतिहास
प्रश्न पत्र –प्रथम
भारत का इतिहास, प्रारंभ से 1206 ई. तक**

इकाई-1

1. भारत की भौगोलिक संरचना
2. भारतीय इतिहास के स्त्रोंतों का सर्वेक्षण
3. पूर्ण पाषाण काल एवं उत्तर पाषाण काल
4. हड़प्पा सभ्यता- निर्माता, प्रसार, नगर योजना, राजनीतिक सामाजिक, आर्थिक संरचना

इकाई-2

5. ऋगवैदिक काल – राजनीतिक, सामाजिक, आर्थिक
6. ईसा पूर्व छठवीं शताब्दी का भारत –महाजनपद काल
7. जैन एवं बौद्ध धर्म
8. सिंकदर का आक्रमण और उसका प्रभाव

इकाई-3

9. चंद्रगुप्त मौर्य एवं अशोक
10. मौर्य प्रशासन, कला एवं संस्कृति, अशोक का धम्म
11. मौर्योत्तरकाल – शुंग, कुषाण एवं सातवाहन
12. संगमयुग- साहित्य, संस्कृति, चोल एवं पाण्ड्य

इकाई-4

13. गुप्तयुग- समुद्रगुप्त की विजयें एवं चंद्रगुप्त द्वितीय, प्रशासन, आर्थिक, सामाजिक, सांस्कृतिक दशा
14. राजपूतों की उत्पत्ति एवं प्रशासनिक तथा सामाजिक विशेषताएं
15. पल्लव, चालुक्य, वर्धन, पाल, राष्ट्रकुट
16. भारत का दक्षिण पूर्व एशिया एवं श्रीलंका से संबंध
17. मोहम्मद बिन कासिम, महमूद गजनवी एवं मुहम्मद गोरी का आक्रमण

इकाई 5

18. छत्तीसगढ़ का परिचय- नामकरण एवं भौगोलिक स्थिति
19. छत्तीसगढ़ के प्रमुख क्षेत्रीय राजवंश-पाण्डुवंश, शरभपुरीय,
20. छत्तीसगढ़ के प्रमुख राजवंश- नलवंश, छिन्दक नागवंश,
21. दक्षिण कोसल के कल्चुरी वंश, राजनीतिक एवं प्रशासनिक व्यवस्था

संदर्भ ग्रन्थ सूची:-

1. रतिभानु सिंह नाहर
 2. शांता शुक्ला
 3. द्विजेन्द्र नारायण एवं श्रीमाली
 4. ओम प्रकाश
 5. बी.एन. लूनिया
 6. एस.आर. शर्मा
 7. K.L. Khurana
 8. K.L. Khurana
 9. Vincent Smith
 10. भार्गव
 11. L. Prasad
 12. भगवान सिंह वर्मा
 13. राम कुमार बेहार
 14. ऋषिराज पांडे
 15. व्ही.व्ही. मिराशी
 16. सुरेश चंद्र शुक्ला
 17. किशोर अग्रवाल
 18. सुरेश चंद्र शुक्ला
एवं अर्चना शुक्ला
 19. लाला जगदलपुरी
 20. प्यारेलाल गुप्त
 21. सी.एल. शर्मा
 22. हीरालाल शुक्ल
 23. पी.एल. मिश्र
- प्राचीन भारतीय इतिहास एवं संस्कृति
भारत का राजनीतिक इतिहास
प्राचीन भारत
प्राचीन भारत
प्राचीन भारतीय संस्कृति
प्राचीन भारत— प्रगैतिहासिक युग से 1200 ई. तक
Ancient India from Earliest Time to 1206 A.D.
History of India from Earliest Time to 1526 A.D
Oxford History of India
प्राचीन भारत
Ancient India- Indius Volley Civilization to 1200 A.D
छत्तीसगढ़ का इतिहास प्रारंभ से 1947ई. तक
छत्तीसगढ़ का इतिहास
दक्षिण कौशल के कल्चुरी
कल्चुरी नरेश और उनका काल
छत्तीसगढ़ का समग्र अध्ययन
बीसवीं शताब्दी का छत्तीसगढ़
छत्तीसगढ़ की रियासतों का विलीनीकरण
- बस्तर इतिहास एवं संस्कृति
प्राचीन छत्तीसगढ़
छत्तीसगढ़ की रियासतें
छत्तीसगढ़ का जनजातीय इतिहास
मुगलकालीन छत्तीसगढ़

बी.ए. प्रथम वर्ष , इतिहास
प्रश्न पत्र – द्वितीय
विषय का इतिहास—1453 ई. से 1890 ई. तक

इकाई—1

1. यूरोप में आधुनिक युग की विशेषताएँ, पुनर्जागरण
2. धर्म सुधार एवं प्रति धर्म सुधार आंदोलन
3. राष्ट्रीय राज्यों का उदय स्पेन, फ्रांस
4. राष्ट्रीय राज्यों का उदय इंग्लैण्ड, रूस

इकाई—2

5. वाणिज्यवाद, उपनिवेशवाद
6. औद्योगिक क्रान्ति
7. इंग्लैण्ड में गृह युद्ध : घटनाएँ, कारण एवं परिणाम
8. गौरव पूर्ण क्रांति (1688)

इकाई—3

9. अमेरिका का स्वतंत्रता संग्राम
10. फ्रांस की क्रान्ति के कारण एवं प्रभाव
11. नेपोलियन युग
12. विएना कांग्रेस

इकाई—4

13. अनुदारवाद— मैटरनिक, आंतरिक एवं विदेश नीति
14. यूरोप में 1830 ई. एवं 1848 ई. की क्रान्ति
15. इंग्लैण्ड में उदारवाद 1832 एवं 1867 ई. का सुधार अधिनियम
16. पूर्वी समस्या— कारण, क्रीमिया युद्ध, बर्लिन सम्मेलन

इकाई—5

17. इटली का एकीकरण
18. जर्मनी का एकीकरण
19. बिस्मार्क की गृह नीति
20. बिस्मार्क की विदेश नीति

संदर्भ ग्रन्थ सूची:—

1. बी. एन. मेहता
 2. K.L. Khurana
 3. Khurana And Sharma
 4. जैन एवं माथुर
 5. कौलेश्वर राय
 6. मथुरा लाल शर्मा
 7. वी.एस. माथुर
 8. बी.एन. लूणिया
 9. एल.पी. शर्मा
 10. वी.डी. महाजन
 11. जे.आर. काम्बले
 12. A.C. Gupta
 13. विपिन बिहारी सिन्हा
- अर्वाचीन यूरोप
History of Modern World
Modern Europe 1453- 1789 A.D.
आधुनिक विश्व
आधुनिक यूरोप
संयुक्त राज्य अमेरिका का इतिहास
संयुक्त राज्य अमेरिका का इतिहास
आधुनिक पाश्चात्य इतिहास की प्रमुख धाराएं
इंग्लैंड का इतिहास
इंग्लैंड का इतिहास
अमेरिका का इतिहास
A History of China
आधुनिक ग्रेट ब्रिटेन

PSYCHOLOGY

Paper	Name of the Paper	Max. Marks	Duration
I	Basic Psychological Processes	50	3 hrs.
II.	Psychopathology	50	3 hrs.
III.	Practicum	50	4 Hrs.

PAPER - I

BASIC PSYCHOLOGICAL PROCESSES (Paper Code-0119)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Introduction: Definition and Goals of Psychology; Behaviouristic, Cognitive and Humanistic; Cross-cultural Perspectives. Methods: Experimental, Observational, Interview, Questionnaire, and Case study.

UNIT-2 Biological Basis of Behaviour: Genes and Behaviour, The Nervous System: The Central Nervous System (C.N.S.), The Autonomic Nervous System (A.N.S.) and The Peripheral Nervous System (P.N.S.); Glands and Hormones; Emotions- Types and Bodily changes (internal and external).

UNIT-3 Sensory and Perceptual Processes: Nature and Types of Sensation, Perception and Attention: Process, Definition, Types and Determinants; Principles of Perceptual Organization; Illusion: Nature and Types.

UNIT-4 Learning and Memory: Classical and Operant Conditioning- Basic Processes; Verbal and Observational Learning; Memory: Sensory (S.M.), Short-term (S.T.M.) and Long-term (L.T.M.); Forgetting: Process and Theories.

UNIT-5 Cognitive and Non-Cognitive Processes: Intelligence: Nature and Types; Motivation: Biogenic and Sociogenic Motives; Thinking Process: Nature and Types. Personality: Nature and Determinants; Approaches to study Personality: Trait and Type Approaches; Assessment of Personality.

References

1. सिंह, अरू । कुमार। सामान्य मनविज्ञान। बनारसदास पकाषन।
2. वर्मा, पीति। आधुनिक सामान्य मनविज्ञान।
3. Baron, R.A. & Byrne, D.A. Understanding Behavior. Tokyo: Holt Sounders.
4. Zimbardo, P.G. Psychology. New York: Haper Collings College publishers.
5. Lefton, L. A. (1985). Psychology. Bosten-Allyn Publishers. 6. Walser, A.L. (1997).

B. A. - I

PSYCHOLOGY

PAPER- II

PSYCHOPATHOLOGY (Paper Code-0120)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Introduction: The concept of Normality and Abnormality; Models of Psychopathology: Psychodynamic, Behavioral and Cognitive.

UNIT-2 Assessment of Psychopathology: Diagnostic Tests, Rating Scales, Clinical Interview, and Projective Tests.

UNIT-3 Anxiety Disorders: Panic Disorder, Phobias, Obsessive Compulsive Disorder (OCD), and Generalized Anxiety Disorder (GAD).

UNIT-4 Mood Disorders: Manic-Depressive Episode and Dysthemia; Personality Disorders: Paranoid, Schizoid, and Dependent Personality Disorder, Dissociative disorder and Obesity.

UNIT-5 Management of Psychopathology: Stress Management; Medico and Psychosocial Therapy: Shock Therapy, Psychoanalysis, Group therapy and Behavior therapy.

References

1. Lamm, A. (1997). Introduction to Psychopathology. NY: Sage.
2. Buss, A. H. (1999). Psychopathology. NY: John Wiley.
- 3^० सिंह तथा तिवारी। अस्नामान्य मनविज्ञान। आगरारू विनाद पस्तक १ डार।
- 4^० कपिल, एच. क। अस्नामान्य मनविज्ञान। आगरारू हरपसाद गाँव।



PSYCHOLOGY

PAPER- III

PRACTICUM

M.M.:50

Note: This paper consists of two parts:

Part-A

- (a) Comprises of Laboratory **Experiments**.
- (b) Comprises of Psychological **Testing** and understanding of self and others.

(a) **Experiments-** (Any five of the following) :-

- (i) Effect of Set on Perception
- (ii) Effect of Frustration on Performance.
- (iii) Division of Attention.
- (iv) Learning Curve/ Serial Position Curve.
- (v) Retroactive Inhibition (RI).
- (vi) S.T.M.
- (vii) Concept Formation.
- (viii) Judgment of Emotions through Facial Expressions.
- (ix) Personality Test

(b) **Psychological Tests** (Any four of the following)

- (i) Verbal/ Nonverbal Intelligence Test/ Performance Tests.
- (ii) E.P.I./ Personality
- (iii) Anxiety test.
- (iv) Depression Scale
- (v) Adjustment Inventory.
- (vi) Achievement motivation.
- (vii) Stress Tolerance Test.

Part-B

Anecdotal Record: Each student will be required to observe the behaviour of pupil in different setting and select an anecdote to understand, judge and narrate it as objectively as possible, so as to reveal his/her psychological insight existing in that anecdotal behavior. This record constitutes a part of psychological assessment of the students. Introduction to the measures of central tendency and graphical presentation of the ungrouped data.

Distribution of Marks

A. Conduction of Psychological Experiment and Reporting	-	15 Marks
B. Administration of one Psychological Test and Reporting	-	15 Marks
C. Evaluation of Practical notebook and Anecdotal record	-	10 Marks
D. Viva-voce	-	10 Marks

Note : No candidate will be allowed to appear in the practical examination unless his/her day-to-day practical work and the report are found satisfactory.

References Choubey, A. (2015). Psycho-lab- Experiment and Test. Raipur: Vaibhav Prakshan.



REVISED SYLLBUS

B. A. Part- I (Economics)

Subject : Micro Economics, Paper-I (Code: 0111)

UNIT 1

Introduction - Definitions Nature and scope of Economics, Methodology in Economics, Utility - Cardinal and Ordinal approaches, Indifference curve, Consumer's equilibrium, Giffin goods, Demand - Law of Demand, Elasticity of demand Consumer's surplus

UNIT 2

Theory of production and cost, Production decision, Production function, Iso-quant, Factor substitution, Law of variable proportions, Returns to scale, Economies of scale, Different concepts of cost and their interrelation, Equilibrium of the firm.

UNIT 3

Market structure-perfect and imperfect markets, Equilibrium of a firm-Perfect competition, Monopoly and price discrimination, Monopolistic competition, Duopoly, Oligopoly, controlled and administered prices

UNIT 4

Factor pricing-Marginal productivity theory of distribution, Euler's theorem, Theories of wage determination, wages and collective bargaining, wage differentials, Rent - Scarcity Rent, differential rent, Quasi rent, Modern Rent Theory, Interest Classical and Keynesian Theories, Modern Theory, Profits - Innovation, Risk bearing and uncertainty theories

UNIT 5

Welfare economics: , What welfare economics is about ?, Role of value judgments in welfare economics, Pigou's contribution in the field of welfare economics, Concept and condition of Pareto optimality, New welfare economics: Kaldor-Hicks welfare criterion, Scitovsky paradox, Social welfare function and social choice: Bergson-Samuelson social welfare function, Prof. Amartya Sen's critique, Arrow impossibility theorem

References:

1. Bach, G. L. (1977) "Economics, " Prentice Hall of India, New Delhi.
2. Gauld, J.P. and Edward P. L. (1996), "Microeconomic Theory," Richard Irwin, Homewood

- . 3. Henderson J. and R. E. Quandt (1980), "Microeconomic Theory : A Mathematical Approach", McGraw Hill, New Delhi.
4. Heathfield and Wibe (1987), " An Introduction to Cost and Production Functions", Macmillan. London.
5. Koutsoyiannis, A. (1990), " Modern Microeconomics" , Macmillan.
6. Lipsey, R. G. and K. A. Chrystal (1999) "Principles of Economics ", (9th Edition), Oxford University Press, Oxford. B.A.-Part-I (21) P

REVISED SYLLBUS

B. A. Part- I (Economics)

Subject : Indian Economy , Paper-II (Code: 0112)

UNIT 1

Pre and post independent Indian economy: A short introduction of economic policies of British India, State of economy at the time of independence, Planning exercise in India-Planning in India through different five Year Plans, The planning commission and NITI Aayog, Growth and development in pre-reform period, New Economic Reforms: Liberalization, Privatization and Globalization, Growth, development and structural change in post-reform period.

UNIT 2

Population and human development: Demographic trends and issues of education, health, malnutrition and migration. Growth and distribution: Trends and policies in poverty, inequality, unemployment and occupational distribution, International comparison in human development and poverty reduction

UNIT 3

Agriculture: Nature and importance, Trends in agriculture production and productivity, factors determining productivity, Land reforms, new agriculture strategies and green revolution, rural credit, Agricultural marketing, natural resources and infra-structure development: Performance, problems and policies, MUDRA yojana.

UNIT 4

Industry: Growth and productivity, Industrial policy and reforms, Growth and problems of small and cottage scale industries, Role of public sector enterprises in India's industrialization. Trends and performance in services.

UNIT 5

External Sector - Role of foreign trade, Trends in exports and imports, Composition and direction of India's foreign trade, Export promotion measures and the new trade policies, Recent macroeconomic scenario: National Income, investment, saving and inflation, Current macroeconomic policies and their impact, fiscal policies and monetary policy.

References

1. Uma Kapila, "Indian Economy : Performance and Policies," published by Academic Foundation.
2. Dutta and Sundram, "Indian Economy", S. Chand Publications.

3. Mishra and Puri, "Indian Economy," Himalaya Publishing House.
4. Economic Survey of India: various Issues, Published by Government of India.

Syllabus for B.A./ B.Sc. Course, 2018-19
Subject:. Statistics

Each year of B.A./B.sc. I, II, III shall have two theories and one practical course. All the Theory as well as Practical Examinations will be of 3 hours duration. In each practical examination 10% marks shall be fixed for viva –voce and 20% marks for practical record.

Scheme of Examination

	Title of the paper	MAX. Marks
B.A./B.Sc. I	Paper-I (Code No. 0803) : Probability I	50
	Paper-II (Code No. 0804): Descriptive Statistics I	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150
B.A./B.Sc. II	Paper-I (Code No. 0853): Statistical Methods	50
	Paper-II (Code No. 0854): Sampling Theory and Design of Experiments	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150
B.A./B.Sc. III	Paper I (Code No. 0907): Applied Statistics	50
	Paper II (Code No. 0908): Statistical Quality Control and Computational Techniques	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150

B.A./B.Sc. –I
Subject-Statistics
Paper – I (Paper Code-0803)
PROBABILITY THEORY

Unit-I

Important concepts in probability: Random experiment: trial, sample point and sample space, event, Operations of events, concepts of mutually exclusive and exhaustive events. Definition of probability: classical and relative frequency approach. Richard Von Misses, Cramer and Kolmogrove approaches to probability, merits and demerits to these approaches, any general idea to be given. Discrete probability space, Properties of probability based on axiomatic approaches, Independence of events, Conditional probability, total and compound probability rules, Baye's theorem and its applications.

Unit-II

Random variables: Definition of discrete random variable (rv); probability mass function (pmf) and cumulative distribution function (cdf). Joint pmf of several discrete rvs. Marginal and conditional pmfs. Independence of rvs. Idea of continuous random variables, probability density function, illustration of random variables and its properties. Expectation of a random variable and its properties -moments, measures of location and dispersion, skewness and kurtosis, Moment generating function, raw and central moments, Probability generating function (pgf) and, their properties and uses.

Unit-III

Standard univariate discrete distributions: degenerate, discrete uniform, hypergeometric, Poisson, geometric and negative binomial distributions. Marginal and conditional distributions, Distributions of functions of discrete rvs, reproductive property of standard distributions.

Unit-IV

Univariate continuous distributions and their properties: Uniform, Beta, Gamma, Exponential, Normal, Cauchy, Lognormal. Moment generating function (mgf) : its properties and applications. Tchebycheff's inequality and applications, statements and applications of weak law of large numbers and central limit theorems.

Unit-V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R.,Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
- 2.Chung, K.L. (1979). Elementary Probability Theory with Stochastic Processes, Springer International Student Edition.
3. Edward P.J., Ford J.S. and Lin (1974): Probability for Statistical Decision-Marketing. Prentice Hall
4. Goon A.M., Gupta M.K. and Dasgupta B.(1999): Fundamentals of Statistics, Vol. I , World Press, Calcutta
5. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, Mc. Graw Hall.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. David Stirzaker (1994). Elementary Probability, Cambridge University Press.
8. Feller, W. (1968). An Introduction to Probability Theory and its Applications, Wiley.
9. Hoel P.G. (1971): Introduction to Mathematical Statistics
10. Mayer P.L. (1970): Introductory Probability and Statistical Applications, Addition Wesley
11. Mukhopadhyay, P. (1996). Mathematical Statistics, New Central Book Agency, Calcutta.
12. Parzen, E. (1960). Modern Probability Theory and its Applications, Wiley Eastern.
13. Pitman, Jim (1993). Probability, Narosa Publishing House.

Paper – II(Paper Code-0804) **DESCRIPTIVE STATISTICS**

Unit - I

Origin and Development of statistical importance, uses and limitations of Statistics. Types of Data: Concepts of a statistics population and sample from a population; qualitative and quantitative data; nominal and ordinal data; cross sectional and time series data; discrete and continuous data; frequency and non-frequency data.

Collection and Scrutiny of Data; Primary data – designing a questionnaire and a schedule; checking their consistency. Secondary data – their major sources including some government publications. Complete enumeration, controlled experiments, observational studies and sample surveys. Scrutiny of data for internal consistency and detection of errors of recording. Ideas of cross-validation.

Presentation of Data: Construction of tables with one or more factors of classification. Diagrammatic and graphical representation of non-frequency data. Frequency distributions, cumulative frequency distributions and their graphical and diagrammatic representation – column diagram, histogram, frequency polygon and ogives. Stem and leaf chart. Box plot.

Unit -II

Analysis of Quantitative Data: Univariate data: Concepts of central tendency or location, and their measures; arithmetic, geometric and harmonic mean, median and mode.

Unit -III

Dispersion and relative measures of dispersion, skewness and kurtosis, and their measures including those based on quartiles and moments. Sheppard's corrections for moments for grouped data (without deviation).

Unit -IV

Bivariate data: Scatter diagram. Product moment correlation coefficient and its properties. Coefficient of determination. Correlation ratio. Concepts of regression. Intra-class correlation coefficient with equal and unequal group sizes. Rank correlation – Spearman's and Kendall's measures. Correlation index. Principle of least squares. Fitting of linear and quadratic regression and related results. Fitting of curves reducible to polynomials by log and inverse transformation. Multivariate data: Multiple regression, multiple correlation and partial correlation in 3 variables. Their measures and related results.

Unit V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R., Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Croxton FE, Cowden DJ and Klein S: Applied General Statistics (1973): Prentice Hall of India.
3. Goon A.M., Gupta M.K., Dasgupta B. Fundamentals of Statistics, Vol. 1(1991) & Vol. 2(2001). World Press, Calcutta.
5. Gupta V.K. and Kapur S.C. : Fundamentals of Mathematical Statistics S. Chand and Sons.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, McGraw Hill.
8. Snedecor GW and Cochran WG: Statistical Methods (1967) : Iowa State University Press.
9. Spiegel, MR (1967): Theory & Problems of Statistics (1967): Schaum's Publishing Series.

Paper III:

Practical : Practicals Based on Paper I & II

1. Presentation of data by Frequency tables, diagrams and graphs.
2. Calculation of Measures of Central Tendency, dispersion , skewness and kurtosis
3. Product Moment Correlation and Correlation Ratio
4. Fitting of Curves by the least square method
5. Regression of two variables
6. Spearman's Rank correlation Coefficient
7. Multiple regression of three variables
8. Multiple correlation and partial correlation
9. Evaluation of probabilities using addition and multiplication theorems, conditional probabilities and Bayes theorems
10. Exercises on mathematical expectations and finding measures of central tendency, dispersion, skewness and kurtosis of univariate probability distributions
11. Fitting of univariate and conditional distributions

बी.ए./बी. एस-सी. प्रथम वर्ष

सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	प्रथम
प्रश्न पत्र का नाम	:-	मानवविज्ञान के आधार

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- इकाई 1 – मानवविज्ञान का अर्थ एवं क्षेत्र। मानव विज्ञान का इतिहास। मानव विज्ञान की शाखाएँ –
1. सामाजिक-सांस्कृतिक मानव विज्ञान
 2. शारीरिक जैविक मानव विज्ञान
 3. भाषाई मानव विज्ञान
- इकाई 2 – मानवविज्ञान का अन्य विषयों के साथ संबंध : जैवविज्ञान, चिकित्सा विज्ञान, सामाजिक विज्ञान, इतिहास, अर्थशास्त्र, समाजशास्त्र, मनोविज्ञान, राजनैतिक विज्ञान।
- इकाई 3 – जैवकीय मानवविज्ञान के आधार
1. मानव उद्विकास, होमिनिड फासिल के संबंध में
 2. मानव विभिन्नता : प्रकार एवं कारक
 3. मानव अनुवांशिकी : अवधारणा, क्षेत्र एवं शाखाएँ
 4. मानव संवृद्धि एवं विकास : परिभाषा, क्षेत्र, पद्धति, एवं मानव संवृद्धि एवं विकास को प्रभावित करने वाले कारक
- इकाई 4 – सामाजिक-सांस्कृतिक मानवविज्ञान के आधार।
1. संस्कृति, समाज, समुदाय, समूह एवं संस्था।
 2. मानव संस्थाएँ :
परिवार : परिभाषा, प्रकार एवं परिवार के प्रकार्य।
विवाह : परिभाषा, विवाह के स्वरूप एवं उसके प्रकार्य।
नातेदारी : परिभाषा, प्रकार एवं प्रकार्य।
धर्म : धर्म के उत्पत्ति संबंधी सिद्धांत।
 3. तथ्य संग्रहण के आधारभूत तकनीक : अवलोकन, अनुसूची, प्रश्नावली एवं वंशावली।
- इकाई 5 – पुरातात्विक मानवविज्ञान के आधार
1. उपकरण प्रारूप एवं तकनीक : पुरापाषाणिक, मध्यपाषाणिक एवं नवपाषाणिक

2. सांस्कृतिक उद्विकास : संस्कृतियों का वृद्ध रूपरेखा (पाषाण-युग से धातु-युग)
3. पुरातत्वशास्त्र में काल निर्धारक तकनीक

बी.ए./बी. एस-सी. प्रथम वर्ष

सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	द्वितीय
प्रश्न पत्र का नाम	:-	शारीरिक/जैविकीय मानवविज्ञान

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- इकाई 1 – शारीरिक मानवविज्ञान का अर्थ एवं क्षेत्र, इतिहास एवं इसका व्यावहारिक आयाम।
जैविक उद्विकास के सिद्धांत : लैमार्कवाद, नव-लेमार्कवाद, डार्विनवाद, नव-डार्विनवाद
एवं उद्विकास के संश्लेषण सिद्धांत
- इकाई 2 – जंतु जगत में मानव का स्थान, जीवित (लिविंग) प्राइमेट का वर्गीकरण, मनुष्य एवं कार्य
की तुलनात्मक शारीरिक रचना (कपाल,पेल्विस, दंत एवं लम्बे अस्थियों के विशेष संदर्भ में)
- इकाई 3 – मानव उद्विकास के जीवाश्म साक्ष्य : रामाथिथेकस, आस्ट्रेलोपिथेकस, पिथेकेन्थ्रोपस,
सिनेएन्थ्रोपस, नियंडरथल, क्रोमेग्नन, ग्रिमाल्डी मानव, चांसलेड मानव।
- इकाई 4 – प्रजाति की अवधारणा : प्रजाति निर्माण एवं प्रजातीय वर्गीकरण के मापदंड, यूनेस्को कथन,
भारत में प्रजातीय तत्व, विश्व के प्रमुख प्रजाति।
- इकाई 5 – मानव अनुवांशिकी :
1. गुणसूत्र की संरचना, डी.एन.ए. एवं आर.एन.ए.
2. मेण्डेलियन सिद्धांत
3. मानव में वंशागतिकी के प्रकार

बी.ए./बी. एस-सी. प्रथम वर्ष

सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	प्रायोगिक
प्रश्न पत्र का नाम	:-	अस्थिशस्त्र एवं कपालमिति

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- भाग 1 – मानव कंकाल के अस्थियों का पहचान। मानव कपाल के विभिन्न संस्थितियों का चित्रण एवं नामकरण। पेक्टोरल एवं पेल्विक गर्डल, फीमर एवं ह्यूमरस अस्थि की पहचान एवं बाह्य चित्रण।
- भाग 2 – कपालमिति :
1. कपाल की अधिकत लंबाई (मैक्सिमम क्रोनियल लेंथ)
 2. कपाल की अधिकतम चौड़ाई (मैक्सिमम क्रोनियल ब्रेथ)
 3. माथे की अधिकतम चौड़ाई (मैक्सिमम फ्रंटल ब्रेथ)
 4. चेहरे की चौड़ाई (बाई-जायगोमेटिक ब्रेथ)
 5. नासिका/नाक की ऊँचाई (नेजल हाईट)
 6. नासिका/नाक की चौड़ाई (नेजल ब्रेथ)
 7. माथे की न्यूनतम चौड़ाई (मिनीमम फ्रंटल ब्रेथ)
 8. बाई-मेक्सिलरी ब्रेथ
 9. आर्बिट की अधिकतम चौड़ाई (बाई आर्बिटल ब्रेथ)
 10. महारंध्र की लंबाई (लेंथ ऑफ फोरामेन मेग्नम)
- भाग 3 – कपालमिति देशनाएँ –
1. क्रोनियल देशना
 2. नेसल देशना

**SYLLABUS
GEOGRAPHY
(B.A. / B.Sc.)
(UG COURSES)**

Admitted Batch 2018-19

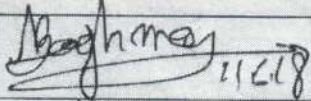
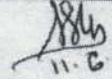

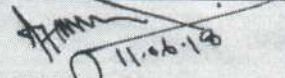
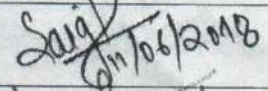
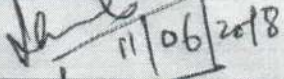
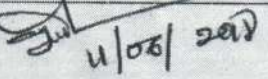
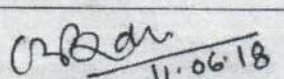
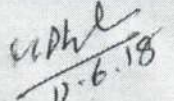


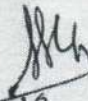
JUNE 2018

Chhattisgarh State Council of Higher Education

उपस्थिति पत्रक
केन्द्रीय अध्ययन मण्डल की बैठक

अध्ययन शाला का नाम – भूगोल अध्ययन शाला, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर
बैठक दिनांक – 11/06/2018 समय – 11:00 बजे

क्रमांक	सदस्यों का नाम/पदनाम	हस्ताक्षर
1	डॉ. एन. के. बघमार, प्रोफेसर अध्यक्ष, भूगोल, अध्ययन मण्डल, पं. र. वि. वि. रायपुर	 11/6/18
2	डॉ. सरला शर्मा, प्रोफेसर एवं अध्यक्ष भूगोल अध्ययन, शाला, पं. र. वि. वि. रायपुर	 11.6.2018
3	डॉ. अमृत लाल पटेल, प्रभारी प्राचार्य, (पदोन्नत प्राध्यापक) शासकीय महाविद्यालय, सरायपाली	 11.6.18
4	डॉ. डी. एल. पटेल, सहा. प्राध्यापक अध्यक्ष, भूगोल, अध्ययन मण्डल, बस्तर वि. वि., जगदलपुर	 11.06.18
5	श्री गोपीश्वर साय, सहा. प्राध्यापक अध्यक्ष, भूगोल, अध्ययन मण्डल, सरगुजा वि.वि. अम्बिकापुर	 11/06/2018
6	डॉ. शीला श्रीधर, सहा. प्राध्यापक एवं विभागाध्यक्ष, भूगोल विभाग, शास. दू. ब. महिला. महा. रायपुर	 11/06/2018
7	डॉ. कृष्ण कुमार द्विवेदी, सहा. प्राध्यापक, एवं विभागाध्यक्ष, भूगोल विभाग, शास. के. डी. महिला महा., राजनांदगांव	 11/06/2018
8	श्री एम. एस. साहू, सहा. प्राध्यापक एवं विभागाध्यक्ष, भूगोल विभाग, शास. स्नातकोत्तर महा. कुरुद, धमतरी	 11.06.18
9	डॉ. सखा राम कुजाम, सहा. प्राध्यापक शास. महा. नारायणपुर	
10	डॉ. एम. पी. गुप्ता, प्रोफेसर एवं पूर्व अध्यक्ष, भूगोल अध्ययन, शाला, पं. र. वि. वि. रायपुर, विशेष आमंत्रित सदस्य,	 11-6-18


11-6-18
अध्यक्ष

भूगोल अध्ययन शाला
पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर

केन्द्रीय अध्ययन मण्डल की बैठक
दिनांक 11/06/2018

कार्यालय, आयुक्त उच्च शिक्षा के पत्र क्रमांक/1686/315/आउशि/समन्वय/2018, रायपुर, दिनांक 05.06.2018 के द्वारा स्नातक स्तर के एकीकृत पाठ्यक्रमों के विभिन्न विषयों के पुनर्निरीक्षण हेतु केन्द्रीय अध्ययन मण्डलों में उक्त अधिनियम की धारा-34(ए) की उपधारा-2, 3 एवं 4 के अंतर्गत आयुक्त, उच्च शिक्षा, छत्तीसगढ़ के नामांकित सदस्यों की केन्द्रीय अध्ययन मण्डल की बैठक आज दिनांक 11/06/2018 को पूर्वान्ह 11:00 बजे भूगोल अध्ययनशाला में आयोजित की गई जिसमें निम्नांकित सदस्य उपस्थित रहे :-

अधिनियम के अन्तर्गत प्रावधान	सदस्य का नाम	हस्ताक्षर
34(क)(2)(i) विश्वविद्यालय के उन विषय के अध्ययन मण्डल के अध्यक्ष	<ol style="list-style-type: none"> डॉ. एन. के. बघमार – अध्यक्ष, अध्ययन मण्डल, भूगोल, पं. रविशंकर शुक्ल वि.वि., रायपुर (छ.ग.) डॉ. डी.एल. पटेल – अध्यक्ष, अध्ययन मण्डल, भूगोल, बस्तर विश्वविद्यालय, जगदलपुर (छ.ग.) डॉ. गोपीश्वर साय – अध्यक्ष, अध्ययन मण्डल, भूगोल, सरगुजा विश्वविद्यालय, जगदलपुर (छ.ग.) डॉ. सरला शर्मा, अध्यक्ष, भूगोल अध्ययनशाला, पं. रविशंकर शुक्ल वि.वि., रायपुर (छ.ग.) 	
34(क)(2)(ii) कुलाधिपति द्वारा नामांकित महाविद्यालयों के स्नातकोत्तर स्तर के विभागाध्यक्ष	<ol style="list-style-type: none"> डॉ. शीला श्रीधर, सहा. प्राध्यापक एवं विभागाध्यक्ष, भूगोल, शा. स्नातकोत्तर दू. ब. महिला महाविद्यालय, रायपुर (छ.ग.) 	
34(क)(3)(iii) कुलाधिपति द्वारा नामांकित महाविद्यालयों के स्नातक स्तर के विभागाध्यक्ष	<ol style="list-style-type: none"> डॉ. एम. एस. साहू, सहा. प्राध्यापक एवं विभागाध्यक्ष, शास. महाविद्यालय, कुरुद, धमतरी (छ.ग.) डॉ. अमृत लाल पटेल, पदोन्नत प्राध्यापक एवं प्रभारी प्राचार्य, शासकीय महाविद्यालय, सरायपाली (छ.ग.) डॉ. गोपीश्वर साय – अध्यक्ष, शासकीय महाविद्यालय, सुरजपर (छ.ग.) डॉ. डी.एल.पटेल – विभागाध्यक्ष, भूगोल शास. भानुप्रतापदेव स्नातकोत्तर, महाविद्यालय, कांकेर (छ.ग.) 	
34(क)(3)(iv) कुलाधिपति द्वारा आयुक्त उच्च शिक्षा की सिफारिश के आधार पर मनोनीत विषय विशेषज्ञ	<ol style="list-style-type: none"> श्री के. के. द्विवेदी सहा. प्राध्यापक शास. के. डी. महिला महाविद्यालय, राजनांदगांव 	
34(क)(3)(v) आयुक्त उच्च शिक्षा का प्रतिनिधि		
विशेष आमंत्रित सदस्य	<ol style="list-style-type: none"> डॉ. एम. पी. गुप्ता, से.नि. प्राध्यापक, पं. रविशंकर शुक्ल वि.वि., रायपुर 	

कार्य वृत्त :- आज दिनांक 11/06/2018 को पू.वा.नं. 11:00 बजे केन्द्रीय अध्ययन मंडल, भूगोल की बैठक भूगोल अध्ययनशाला, पं. रविशंकर शुक्ल वि.वि., रायपुर में आयोजित हुई जिसमें निम्नानुसार अनुशंसा की गई :-

1. कार्य सूची - 1 के संदर्भ में सदस्यों द्वारा बी.ए./बी. एस. सी - प्रथम, द्वितीय एवं तृतीय वर्ष, 2018-19 के पाठ्यक्रम के विषय में चर्चा की गई तथा बी.ए./बी. एस. सी - प्रथम, द्वितीय एवं तृतीय वर्ष, 2018-19 के पाठ्यक्रम में संशोधन कर निम्नलिखित संशोधित पाठ्यक्रम अनुशंसित किया गया -

Brief Summary

3 Year Integrated UG Courses (B.A./B.Sc) in Geography

B.A. /B.Sc. Part I

The B.A. /B.Sc. Part-I Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

- | | |
|-------------|---------------------|
| Paper - I | Physical Geography |
| Paper - II | Human Geography. |
| Paper - III | Practical Geography |

B.A. /B.Sc. Part-II

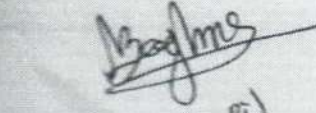
The B.A./B.Sc. Part-II Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

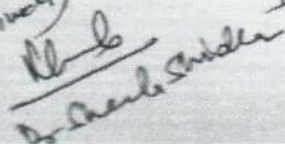
- | | |
|-----------|----------------------------------|
| Paper-I | Economic and Resources Geography |
| Paper-II | Regional Geography of India |
| Paper-III | Practical Geography |

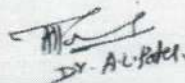
B.A. /B.Sc. Part III

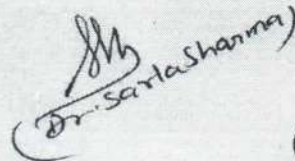
The B.A. /B.Sc. Part III Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows

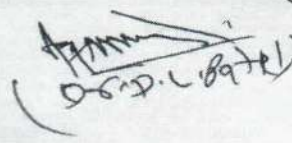
- | | |
|-------------|---------------------------|
| Paper - I | Remote Sensing and GIS |
| Paper - II | Geography of Chhattisgarh |
| Paper - III | Practical Geography |

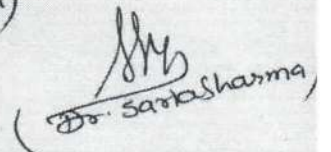

(Dr. K. K. Dwivedi)

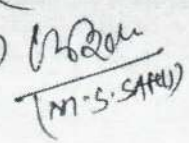

Dr. Anand Shinde


Dr. A. C. Patil


(Dr. Sarita Sharma)


(Dr. P. C. Bhatnagar)


(Dr. Sarita Sharma)


(M. S. Sahu)

प्रपत्र

कक्षा : बैचलर ऑफ आर्ट्स / साइंस

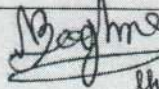


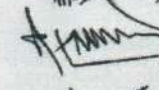
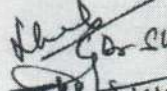
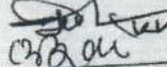
विषय : भूगोल

संकाय : कला / विज्ञान

प्रश्नपत्र	प्रश्नपत्र का नाम
I	भौतिक भूगोल (Physical Geography)
II	मानव भूगोल (Human Geography)
III	प्रायोगिक - मानचित्र एवं सांख्यिकी (Practical - Cartography and Statistical Techniques)
IV	आर्थिक एवं संसाधन भूगोल (Economic & Resource Geography)
V	भारत का प्रादेशिक भूगोल (Regional Geography of India)
VI	प्रायोगिक - मानचित्र निर्वचन, प्रक्षेप एवं सांख्यिकी विधि (Practical - Map Interpretation and Statistical Techniques) Projection
VII	सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली (Remote Sensing and GIS)
VIII	छत्तीसगढ़ का भूगोल (Geography of Chhattisgarh)
IX	प्रायोगिक - मानचित्र पठन एवं निर्वचन (Practical - Map Reading & Interpretation)

वर्तमान पाठ्यक्रम	नवीन संसोधित	नवीन संसोधित पाठ्यक्रम का औचित्य
संलग्नानुसार संलग्नक क्रमांक - 1	संलग्नानुसार संलग्नक क्रमांक - 2	<ol style="list-style-type: none"> 1. विश्वविद्यालय अनुदान आयोग के पाठ्यक्रम के अनुरूप विषय वस्तु का युक्ति-युक्तकरण किया गया है। 2. छात्रों में विभिन्न प्रतियोगिता परीक्षा में सफलता के लिए नवीन पठन-पाठन शामिल कर प्रश्नपत्रों में संशोधन किया गया है। 3. छ. ग. शासन की अपेक्षाओं के अनुरूप, क्षेत्रीय आवश्यकताओं को ध्यान में रखकर पाठ्यक्रम तैयार किया गया है।

1. डॉ. एन. के. बघमार, अध्यक्ष
2. डॉ. सरला शर्मा, प्रोफेसर, सदस्य
3. डॉ. अमृत लाल पटेल, सदस्य
4. डॉ. डी. एल. पटेल, सदस्य
5. श्री गोपीश्वर साय, सदस्य
6. डॉ. शीला श्रीधर, सदस्य
7. डॉ. कृष्ण कुमार द्विवेदी, सदस्य
8. श्री एम. एस. साहू, सदस्य
9. डॉ. सखा राम कुजाम, सदस्य
10. डॉ. एन. पी. गुप्ता, आमंत्रित सदस्य

 Dr. N. K. BAGMAR
 (Dr. Sarla Sharma)
 Dr. A. L. Patel, Govt. College Sarai Pali
 (Dr. D. L. Patel) Chairman Board of
Study Baitun Vni
 (Dr. Sheela Shrivastava)
 (M. S. SAHU) Govt. P. G. College Kuzwad

कार्य वृत्त :- आज दिनांक 11/06/2018 को पू र्वाह्न 11:00 बजे केन्द्रीय अध्ययन मंडल, भूगोल की

बैठक भूगोल अध्ययनशाला, पं. रविशंकर शुक्ल वि.वि., रायपुर में आयोजित हुई जिसमें निम्नानुसार अनुशंसा की गई :-

1. **कार्य सूची – 1** के संदर्भ में सदस्यों द्वारा बी.ए./बी. एस. सी – प्रथम, द्वितीय एवं तृतीय वर्ष, 2018–19 के पाठ्यक्रम के विषय में चर्चा की गई तथा बी.ए./बी. एस. सी – प्रथम, द्वितीय एवं तृतीय वर्ष, 2018–19 के पाठ्यक्रम में संशोधन कर निम्नलिखित संशोधित पाठ्यक्रम अनुशंसित किया गया –

Brief Summary

3 Year Integrated UG Courses (B.A./B.Sc) in Geography

B.A. /B.Sc. Part I

The B.A. /B.Sc. Part-I Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

Paper - I	Physical Geography
Paper - II	Human Geography.
Paper - III	Practical Geography

B.A. /B.Sc. Part-II

The B.A./B.Sc. Part-II Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows:

Paper-I	Economic and Resources Geography
Paper-II	Regional Geography of India
Paper-III	Practical Geography

B.A. /B.Sc. Part III

The B.A. /B.Sc. Part III Examination in Geography will be 150 marks. There will be two theory papers and one Practical each of 50 marks as follows

Paper – I	Remote Sensing and GIS
Paper - II	Geography of Chhattisgarh
Paper - III	Practical Geography

B.A. /B.Sc. Part I

PAPER - I
PHYSICAL GEOGRAPHY

Max. Marks: 50
(Paper Code-0117)

- Unit I** The Nature and Scope of Physical Geography. Origin of the Earth, Geological Time Scale, Earth's Interior, Continental Drift Theory (Wegner), Plate Tectonics, Isostasy.
- Unit II** Earth movements: Earthquakes and Volcanoes. Rocks, Weathering, Erosion, and Normal cycle of erosion, Evaluation of landscapes- Fluvial, Arid, Glacial, Karts and Coastal landscape.
- Unit III** Elements of Weather and Climate, Composition and Structure of the Atmosphere. World patterns of Atmospheric Temperature, Pressure, and Wind.
- Unit IV** Atmospheric Moisture, and Disturbances, Climatic Classification (Koppen and Thornthwait) types, characteristics and World patterns.
- Unit V** Surface relief of Pacific Ocean, Atlantic Ocean, and Indian Ocean. Distribution of Temperature and Salinity of oceans and seas, Currents and Tides, Ocean Deposits and Coral Reefs, and Oceanic Resources.

Books Recommended:

1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge, London.
2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company. New Delhi
3. Bunnett, R.B. (2003): Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Private Ltd.
4. Garrison, T. (1998): Oceanography, Wordsworth Company., Belmont.
5. Lake, P. (1979): Physical Geography (English and Hindi editions), Cambridge University Press, Cambridge.
6. Lal, D.S. 1993 : Climatology, 3rd edition, Chaitanya Pub. House, New Delhi
7. Leong Goh Cheng (2003): Certificate Physical and Human Geography, Oxford University Press, New Delhi.
8. Monkhouse, F.J. (1979): Physical Geography. Methuen, London
9. Singh, S. (2003): Physical Geography. (English and Hindi editions.). Prayag Pustak Bhawan, Allahabad;
10. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York.
11. Singh, M.B. (2001): *Bhoutik Bhugol*, Tara Book Agency, Varanasi
12. Strahler, A.N. and Stahler, A.M. (1992): Modern Physical Geography. John Wiley and Sons, New York.

B.A. /B.Sc. Part I

PAPER - II
HUMAN GEOGRAPHY
Max. Marks: 50
(Paper Code-0118)

- Unit I** Definition and Scope of Human Geography. Man - environment relationship; Determinism, Possibilism, and Probabilism; Human Development Index (HDI).
- Unit II** Classification of Human Races – their Characteristics and Distribution; Human adaptation to environment: Eskimos, Bushman, Pigmy, Gond, Masai, and Naga.
- Unit III** Growth, Density and Distribution of World Population and factors influencing Spatial distribution; Over , Under, and Optimum Population; Migration of Population. .
- Unit IV** Settlements – Urban Settlements: Urbanization, Evolution and Classification, Trends of Urbanization.

Rural settlements: Characteristics, Types and Regional Pattern, Rural Houses in India - Types, Classification and Regional Pattern.
- Unit V** Issues – Global Warming, Climate Change, Deforestation, Desertification, Air, Water and Soil Pollution.

Books Recommended:

1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
2. De Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,
3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10th edition.
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
5. Huggett, R. J. (1998): Fundamentals of Biogeography, Routledge, London.
6. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
7. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.
8. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
9. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5th ed.
10. Saxena, H. M. (2000): Environmental Management. Rawat Publications., Jaipur and New Delhi.
11. Singh, K. N. and Singh, J. (2001): *Manav Bhugol*. Gyanodaya Prakashan, Gorakhpur. 2nd edition.
12. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
13. Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd.,London
14. Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.

PAPER - III
PRACTICAL GEOGRAPHY
Max. Marks: 50

SECTION A

CARTOGRAPHY AND STATISTICAL METHODS (M.M. 25)

Unit I Scale: Statement Scale, Representative Fraction (R.F.), Linear scale – Simple, Diagonal, Comparative, and Time Scales.

Unit II Contour: Methods of showing relief; Hachures, Contours; Representation of different landforms by contours.

Unit III Graph and Diagram: Line graph, Bar Diagram (Simple and Compound), Circle Diagram, Pie Diagram

Unit IV Statistical Technique: Mean, Median and Mode

SECTION B

SURVEYING - (M.M. 15)

Unit V Chain and Tape Survey. Triangulation method, Open Traverse and Closed Traverse

PRACTICAL RECORD AND VIVA VOCE (M.M. 10)

Books Recommended:

1. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
2. Jones, P.A.(1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London
3. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai
5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
6. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
7. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
8. Sharma, J. P. (2001): *Prayogik Bhugol.*, Rastogi Publication, Meerut 3rd. edition.
9. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
10. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
11. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.

PAPER - I
ECONOMIC AND RESOURCES GEOGRAPHY

Max. Marks: 50

(Paper Code-0187)

- Unit I** Meaning, scope and approaches to economic geography; Main concepts of economic geography; Resource: concept and classification; Natural resources: soil, forest and water.
- Unit II** Mineral resources: iron ore and bauxite; Power resources: coal, petroleum and hydro electricity; Resource conservation; Principal crops: wheat, rice, sugarcane and tea
- Unit III** Agricultural regions of the world (Derwent Whittlesey); Theory of agricultural location (Von Thunen); Theory of industrial location (Weber); Major industries: iron and steel, textiles, petrochemical and sugar; industrial regions of the world.
- Unit IV** World transportation: major trans-continental railways, sea and air routes; International trade: patterns and trends; Major trade blocks: LAFTA, EEC, ASEAN; Effect of globalization on developing countries.
- Unit V** Conservation of resources; evolution of the concept, principles, philosophy, and approach to conservation, resources conservation and practices. Policy making and sustainable development.

Books Recommended:

1. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,.
2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark, G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
5. Gautam, A. (2006): *Aarthik Bhugol Ke Mool Tattava*, Sharda Pustak Bhawan, Allahabad.
6. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
7. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.

बी.ए./बी.एस.सी. – प्रथम वर्ष
प्रश्न पत्र—प्रथम
भौतिक भूगोल

अधिकतम अंक : 50

(कोड क्रमांक 0117)

- इकाई –1.** भौतिक भूगोल की प्रकृति एवं विषय क्षेत्र, पृथ्वी की उत्पत्ति, भूगर्भिक समय मापनी, पृथ्वी की आंतरिक संरचना, वेगनर का महाद्वीपीय प्रवाह सिद्धांत, पट्ट विवर्तन, भूसंतुलन ।
- इकाई –2.** पृथ्वी की हलचल—भूकंप, ज्वालामुखी, चट्टान अपक्षय, अपरदन, सामान्य अपरदन चक्र, वायु, हिम बहता जल, भूमिगत जल और सागरीय जल से निर्मित भूदृश्य ।
- इकाई –3.** मौसम और जलवायु के तत्व, वायुमंडल की संरचना एवं संघटन, वायुमंडलीय ताप, दाब तथा हवाएं ।
- इकाई –4.** वायुमंडलीय आर्द्रता विक्षोभ, जलवायु वर्गीकरण कोपेन और थार्नथ्वेट के आधार पर वैश्विक जलवायु की विशेषताएँ और विश्व प्रतिरूप ।
- इकाई –5.** महासागरीय उच्चावच प्रशांत महासागर, आंध्रमहासागर एवं हिन्द महासागर । सामुद्रिक तापमान लवणता जलधाराएँ एवं, ज्वारभाटा, सामुद्रिक निक्षेप एवं प्रवाल भित्ती, सामुद्रिक संसाधन ।

Books Recommended:

1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge, London.
2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company. New Delhi
3. Bunnett, R.B. (2003): Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Private Ltd.
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9. Singh, S. (2003): Physical Geography. (English and Hindi editions.). Prayag Pustak Bhawan, Allahabad;
10. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York.
11. Singh, M.B. (2001): *Bhoutik Bhugol*, Tara Book Agency, Varanasi
12. Strahler, A.N. and Stahler, A.M. (1992): Modern Physical Geography. John Wiley and Sons, New York.

बी.ए./बी.एस.सी. –प्रथम वर्ष
प्रश्न पत्र–द्वितीय
मानव भूगोल

अधिकतम अंक : 50

(कोड क्रमांक 0118)

- इकाई –1.** मानव भूगोल की परिभाषा एवं विषय क्षेत्र मानव वातावरण संबंध, निश्चयवाद, संभववाद प्रसम्भववाद, मानव विकास सूचकांक ।
- इकाई –2.** मानव प्रजाति उद्भव प्रकार विशेषताएँ एवं वितरण, मानव द्वारा वातावरण से अनुकूलन एस्किमो, बुशमेन,
पिग्मी, गोंड, मसाई, और नागा ।
- इकाई –3.** वैश्विक जनसंख्या– वृद्धि, घनत्व, जनसंख्या के वितरण को प्रभावित करने वाले स्थानिक कारक, जनाधिक्य, न्यूनतम जनसंख्या और अनूकूलतम आदर्श जनसंख्या, जनसंख्या एवं प्रवास ।
- इकाई –4.** अधिवास– नगरीय अधिवास: नगरीयकरण उद्भव, प्रकार एवं नगरीकरण के प्रतिरूप ।
ग्रामीण अधिवास : विशेषताएँ, प्रकार और क्षेत्रीय प्रतिरूप, भारत में ग्रामीण अधिवास, प्रकार, वर्गीकरण और क्षेत्रीय प्रतिरूप ।
- इकाई –5.** उभरते पर्यावरणीय मुद्दे– ग्लोबल वार्मिंग, जलवायु परिवर्तन निर्वनिकरण, मरुस्थलीकरण प्रदूषण – जल, वायु और मृदा प्रदूषण ।

Books Recommended:

1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
2. De Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,
3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10th edition.
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
5. Huggett, R. J. (1998): Fundamentals of Biogeography, Routledge, London.
6. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
7. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.
8. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
9. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5th ed.
10. Saxena, H. M. (2000): Environmental Management. Rawat Publications., Jaipur and New Delhi.
11. Singh, K. N. and Singh, J. (2001): *Manav Bhugol*. Gyanodaya Prakashan, Gorakhpur. 2nd edition.
12. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
13. Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd.,London
14. Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.

बी.ए./बी.एस.सी.—प्रथम वर्ष
प्रश्न पत्र—तृतीय
प्रायोगिक भूगोल

अधिकतम अंक : 50

भाग— अ मानचित्र तकनीक एवं सांख्यिकी विधियां (25)

इकाई —1 मपनी— कथनात्मक मापन, प्रतिनिधि भिन्न सामान्य रैखिक मापनी विकर्ण तुलनात्मक एवं समय मापनी.

इकाई —2 उच्चावच प्रदर्शन की विधियां – हैश्यूर समोच्च रेखा, तथा विविध स्थलाकृतियों की प्रदर्शन.

इकाई —3 रैखिक आरेख, दंड आरेख, (सामान्य एवं मिश्रित) चक्र आरेख – समानुपातिक वृत्त आरेख विभाजित वृत्तारेख

इकाई —4 सांख्यिकी विधियां : औसत, माध्यिका , बहुलक

भाग— ब सर्वेक्षण (15)

इकाई —5 चैन और फीता सर्वेक्षण—त्रिभुजीकरण, खुला एवं बंद मार्ग मापन,

प्रायोगिक पुस्तिका और मौखिक परिक्षण परीक्षा (10)

Books Recommended:

1. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
2. Jones, P.A.(1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London
3. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai
5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
6. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
7. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
8. Sharma, J. P. (2001): *Prayogik Bhugol.*, Rastogi Publication, Meerut 3rd. edition.
9. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
10. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
11. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.

बी.ए./बी.एस.सी. –द्वितीय वर्ष
प्रश्न पत्र–प्रथम
आर्थिक एवं संसाधन भूगोल

(कोड क्रमांक 0187)

अधिकतम अंक: 50

- इकाई-1 :** आर्थिक भूगोल का अर्थ, विषय क्षेत्र एवं उपागम; आर्थिक भूगोल की आधारभूत संकल्पनाये; संसाधन : संकल्पनायें एवं वर्गीकरण; प्राकृतिक संसाधन : मिट्टी, वन एवं जल ।
- इकाई-2 :** खनिज संसाधन : लौह अयस्क एवं बाक्साईट; शक्ति संसाधन कोयला, पेट्रोलियम एवं जल विद्युत; संसाधन संरक्षण ; प्रमुख फसले: गेहूँ, चाँवल, गन्ना, एवं चाय ।
- इकाई-3 :** विश्व के कृषि प्रदेश (व्हिटलसी के अनुसार); कृषि अवस्थिति के सिद्धान्त (वॉन थ्यूनेन); औद्योगिक स्थानीयकरण का सिद्धान्त (वेबर); प्रमुख उद्योग : लौह एवं इस्पात, वस्त्र उद्योग, शैलरासायनिक एवं शक्कर; विश्व के औद्योगिक प्रदेश ।
- इकाई-4 :** विश्व परिवहन : प्रमुख ट्रांस महाद्वीपीय रेलवे, समुद्र एवं वायु मार्ग; अंतर्राष्ट्रीय व्यापार प्रतिरूप एवं प्रवृत्तियाँ; प्रमुख व्यापार संघ : लैटिन अमेरिकी स्वतंत्र व्यापार संघ (LAFTA), यूरोपीय साझा बाजार (EEC), दक्षिणी-पूर्वी एशियाई राष्ट्रों का संघ (ASEAN), विकासशील देशों पर भूमण्डलीकरण का प्रभाव ।
- इकाई-5 :** संसाधनों का संरक्षण; संकल्पनाओं का उद्भव, सिद्धांत, दर्शन एवं संरक्षण के उपागम, संसाधन संरक्षण एवं प्रवृत्तियाँ, अक्षय विकास एवं नीति निर्माण ।

Books Recommended:

1. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,.
2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark, G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
5. Gautam, A. (2006): *Aarthik Bhugol Ke Mool Tattava*, Sharda Pustak Bhawan, Allahabad.
6. Guha, J. S. and Chatteraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
7. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.

नवीन संशोधित पाठ्यक्रम

दर्शन शास्त्र

बी.ए. भाग-एक, दर्शन शास्त्र में दो प्रश्न पत्र (75 अंक) के होंगे

1. भारतीय दर्शन की रूपरेखा
2. पाश्चात्य दर्शन का इतिहास

प्रत्येक प्रश्न पत्र पांच इकाईयों में विभाजित है । प्रत्येक इकाई में से एक प्रश्न हल करना अनिवार्य होगा ।

बी.ए. भाग – एक

दर्शन शास्त्र

प्रथम – प्रश्न पत्र

भारतीय दर्शन की रूपरेखा

- इकाई-1
1. भारतीय दर्शन – परिचय एवं मुख्य विशेषताएं
 2. वेद एवं उपनिषद- ब्रह्म , आत्मा
 3. चार्वाक दर्शन – तत्त्व मीमांसा
- इकाई-2
1. जैन दर्शन – स्यादवाद, जीव, बंधन एवं मोक्ष
 2. बौद्ध दर्शन- चार आर्यसत्य, अनात्मवाद
- इकाई-3
1. न्याय दर्शन – प्रमाण (प्रत्यक्ष एवं अनुमान), ईश्वर
 2. वैशेषिक दर्शन- परमाणुवाद, सप्त पदार्थ
- इकाई-4
1. सांख्य दर्शन – प्रकृति , पुरुष, विकासवाद
 2. योग दर्शन – अष्टांग योग, ईश्वर
- इकाई-5
1. शंकराचार्य का अद्वैत दर्शन- ब्रह्म, आत्मा, माया
 2. रामानुज का विशिष्टाद्वैत – ब्रह्म, जीव, मोक्ष

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

नवीन संशोधित पाठ्यक्रम

बी.ए. भाग – एक

दर्शन शास्त्र

द्वितीय – प्रश्न पत्र

पाश्चात्य दर्शन का इतिहास

- इकाई-1
1. पाश्चात्य दर्शन – परिचय
 2. प्लेटो- प्रत्ययों का सिद्धांत
 3. अरस्तू- कारणता का सिद्धांत
- इकाई-2
1. थामस एक्वीनास- ईश्वर के अस्तित्व के प्रमाण
 2. डेकार्ट- संदेह पद्धति, आत्मा का अस्तित्व, ईश्वर का अस्तित्व
- इकाई 3.
1. स्पिनोजा – द्रव्य, गुण, पर्याय
 2. लाइबनिट्ज- चिदबिन्दुवाद
- इकाई-4
1. जॉन लॉक- सहज प्रत्ययों का खंडन, मूलगुण एवं उपगुण
 2. जॉन बर्कले – मूलगुण एवं उपगुण का खंडन, विज्ञानवाद
- इकाई-5
1. ह्यूम- संस्कार और प्रत्यय, संदेहवाद, आत्मा का खंडन
 2. कांट – समीक्षावाद

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

**संशोधित पाठ्यक्रम – बी.ए. प्रथम वर्ष के अंतर्गत
विशय – नृत्य (भरत नाट्यम)**

बी.ए. भाग (1) के लिये इस विषय में प्रायोगिक और सैद्धांतिक दो भाग होंगे। प्रायोगिक 50 अंक एवं सैद्धांतिक 100 अंक का होगा। इस हेतु 50-50 अंक के दो प्रश्नपत्र होंगे। प्रत्येक वर्ष के पूर्णांक कुल मिलाकर 150 अंक के होंगे।

क्र	विवरण		पूर्णांक	उत्तीर्णांक
1	सैद्धांतिक प्रथम प्रश्न पत्र	—	50	17
2	सैद्धांतिक द्वितीय प्रश्न पत्र	—	50	17
3	प्रायोगिक	—	50	17
योग			150	51

सैद्धांतिक (विस्तृत पाठ्यक्रम)

प्रथम प्रश्न पत्र

**शीर्षक – नृत्य का इतिहास एवं सामान्य अध्ययन
पेपर कोड (0153)**

1. नृत्य का इतिहास – सिंधु सभ्यता, वैदिक काल, रामायण एवं महाभारत काल में नृत्य की स्थिति।
2. पुराणों के आधार पर – उमाशंकर एवं नटवर श्री कृष्ण की नृत्य संबंधी कथाएँ – त्रिपुरडाह, उमा तांडव, मोहिनी-भस्मासुर, माखन लीला, कालिया दमन, रासलीला।
3. नृत्य का अन्य ललित कलाओं से संबंध – संगीत, साहित्य, चित्रकला एवं मूर्तिकला से संबंध।
4. नाट्य की उत्पत्ति कथा – भारत के नाट्यशास्त्र के प्रथम अध्याय में वर्णित।
5. लोकधर्मी नाट्य परंपरा – निम्न की संक्षिप्त जानकारी –
 1. रामलीला
 2. रासलीला
 3. भवाई
 4. माच

सैद्धांतिक (विस्तृत पाठ्यक्रम)
द्वितीय प्रश्न पत्र
शीर्षक – शास्त्रीय नृत्य सिद्धान्त
पेपर कोड (0154)

1. ताल की प्रारंभिक जानकारी – 1. ताल के दस प्राण।
2. लय – विलंबित, मध्य एवं द्रुत लय।
2. संक्षिप्त जीवन परिचय – भरत मुनि, आचार्य नंदिकेश्वर।
3. नृत्य के अभ्यास से शारीरिक एवं मानसिक लाभ।
4. भारतीय नाट्य परंपरा में गुरुवंदना का महत्त्व।
5. छत्तीसगढ़ी नृत्यों का सामान्य परिचय – 1. करमा 2. ददरिया
3. सुवा 4. रीना, परब

प्रायोगिक

1. मौखिक मुद्रा प्रदर्शन – (अभिनय दर्पण के अनुसार)
(1) शिवस्तुति (2) शिरोभेद (3) ग्रीवाभेद
(4) दृष्टिभेद (5) असंयुक्त हस्त (6) संयुक्त हस्त
2. कार्यक्रम विभाग – (1) शारीरिक अभ्यास
(2) आरंभिक –05 अङ्ग भेद
(पद + हस्त संचालन तीन काल में)
(3) पूजा नृत्य
(4) अलारिपु (तिस्त्रजाति)

प्रथम प्रश्न पत्र : राजनीतिक सिद्धान्त Paper I : Political Theory

- इकाई 1 : राजनीति विज्ञान का अर्थ, परिभाषा (आधुनिक अवधारणा सहित) । राजनीति एक विशिष्ट मानवीय व्यवहार के रूप में । शक्ति, सत्ता, प्रभाव : अर्थ, विशेषताएं, प्रकार । राजनीति विज्ञान की अध्ययन पद्धतियां : परम्परागत एवं व्यवहारवाद एवं उत्तर व्यवहारवाद ।
- Unit 1 : Meaning and Definition of Political Science (with modern concept). Politics as a specific human behaviour. Power, Authority and Influence : meaning, features and kinds. Method of Study to Political Science : Traditional , Behaviouralism and Post Behaviouralism.
- इकाई 2 : राज्य एवं उसके आवश्यक तत्व । राज्योत्पत्ति के विभिन्न सिद्धान्त, मार्क्सवादी सिद्धान्त । सावयविक सिद्धान्त ।
- Unit 2 : State and its essential elements. Various theories of the origin of the State, Marxist theory . Organismic Theory.
- इकाई 3 : सम्प्रभुता एवं उसकी बहुलवादी आलोचना । अधिकार: अर्थ, प्रकार , सिद्धान्त । कर्तव्य । स्वतन्त्रता : अर्थ , प्रकार, संरक्षण । समानता : अर्थ , प्रकार एवं स्वतन्त्रता से सम्बंध । प्रजातन्त्र : परिभाषा, व्यापक अर्थ, चुनौतियां, सफलता के लिए आवश्यक शर्तें , गुण-दोष । प्रत्यक्ष प्रजातन्त्र ।
- Unit 3: Sovereignty and its pluralistic criticism. Rights : meaning, kinds and theories. Duties. Liberty : meaning, kinds , safeguards. Equality : meaning, kinds and relations with Liberty. Democracy : meaning, comprehensive meaning, challenges, conditions for its success, merits and demerits. Direct Democracy.
- इकाई 4 : शासन के प्रकार : एकात्मक व संघात्मक , संसदीय व अध्यक्षीय, निरंकुशतन्त्र । शासन के अंग : कार्यपालिका, व्यवस्थापिका, न्यायपालिका । शक्ति पृथक्करण का सिद्धान्त व नियंत्रण –संतुलन का सिद्धान्त । संविधान : अर्थ , प्रकार । प्रतिनिधित्व के सिद्धान्त एवं निर्वाचन प्रणालियां ।
- Unit 4 : Kinds of Government : Unitary and Federal, Parliamentary and Presidential. Dictatorship. Organs of Government : Executive, Legislature and Judiciary. Theory of Separation of Powers and Checks and Balances. Constitution : meaning and kinds. Theories of representation and Electoral Process.
- इकाई 5 : लोककल्याणकारी राज्य । दल पद्धति : अर्थ , प्रकार, पद्धति । दबाव समूह : अर्थ, प्रकार, तकनीक । सामाजिक परिवर्तन : अर्थ, विशेषताएं , सिद्धान्त । नारीवाद, राष्ट्रवाद ।
- Unit 5 : Public Welfare State. Party System : meaning , kinds , process. Pressure Groups : meaning, kinds and technique. Social Change : meaning, characteristics, theories. Feminis. Nationalism.

राजनीतिक सिद्धांत

बी.ए. प्रथम

प्रथम प्रश्न पत्र

1. ओ.पी. गाबा, समकालीन राजनीतिक सिद्धांत, मयूर पेपर बैक्स नोएडा।
2. ओ.पी. गाबा, राजनीति सिद्धांत की रूपरेखा, मयूर पेपर बैक्स नोएडा।
3. जे.सी. जौहरी व सीमा जौहरी, आधुनिक राजनीति विज्ञान के सिद्धांत, स्टर्लिंग पब्लिकेशन।
4. पंत गुप्ता जैन, राजनीति शास्त्र के आधार, सेन्ट्रल पब्लिकेशिंग हाऊस इलाहाबाद।
5. प्रो. आनंद प्रकाश अवस्थी, भारतीय शासन एवं राजनीति, लक्ष्मीनारायण अग्रवाल, आगरा।
- 6 Andrew Haywood Political Theory , An Introduction.
- 7- O.P. Gaba An Introduction to Political Theory, Macmillan India Ltd.

द्वितीय प्रश्न पत्र : भारतीय शासन एवं राजनीति Paper II : Indian Government and Politics

- इकाई 1 : भारतीय राष्ट्रीय आन्दोलन : 1858 का प्रथम स्वतन्त्रता संग्राम, असहयोग आन्दोलन, सविनय अवज्ञा आन्दोलन, भारत छोड़ो आन्दोलन । भारत का संविधानिक विकास : 1858, 1909, 1919 और 1935 का भारत शासन अधिनियम ।
- Unit 1 : Indian National Movement : First Independence Movement 1858, Non cooperation Movement, Civil Disobedience Movement and Quit India Movement. Constitutional Development of India : Govt. of India Act of 1858, 1909, 1919 and 1935.
- इकाई 2 : भारतीय संविधान : विशेषताएं , प्रस्तावना, स्रोत, । संघीय व्यवस्था , मौलिक अधिकार, मूल कर्तव्य, नीति निर्देशक तत्व । संविधान संशोधन प्रक्रिया ।
- Unit 2 : Constitution of India : Characteristics, Preamble, Sources. Federal System. Fundamental Rights and Duties, Directive Principles of State Policy. Constitution Amendment Process.
- इकाई 3 : संघीय कार्यपालिका : राष्ट्रपति, उपराष्ट्रपति, मन्त्रिपरिषद् और प्रधानमंत्री । संघीय व्यवस्थापिका : संसद : लोकसभा और राज्यसभा । संसदीय प्रक्रिया ।
- Unit 3 : Union Executive : President , Vice President, Council of Ministers and Prime Minister. Union Legislature : Parliament: Lok Sabha and Rajya Sabha. Parliamentary Procedure.
- इकाई 4 : संघीय न्यायपालिका : सर्वोच्च न्यायालय : गठन, क्षेत्राधिकार, न्यायिक पुनरावलोकन, न्यायिक सक्रियतावाद । राज्य कार्यपालिका : राज्यपाल , मन्त्रिपरिषद् और मुख्यमंत्री ।
- Unit 4 : Union Judiciary : Supreme Court : Organisation, Jurisdiction, Judicial Review, Judicial Activism. State Executive : Governor, Council of Ministers and Chief Minister.
- इकाई 5 : राज्य व्यवस्थापिका : विधानसभा एवं विधानपरिषद् । निर्वाचन आयोग व चुनाव सुधार । राष्ट्रीय व क्षेत्रीय दल । भारतीय राजनीति के प्रमुख मुद्दे : जाति, धर्म, भाषा और क्षेत्र । पंचायती राज व्यवस्था ।
- Unit 5 : State Legislature : Legislative Assembly and Legislative Council. Election Commission and Election Reforms. National and Regional Parties. Major issues of Indian Politics : Caste, Religion, Language and Region. Panchayati Raj System.

संदर्भ पुस्तकें (Reference Books)

8. डॉ. सुभाष कश्यप, भारत का संवैधानिक विकास और संविधान, हिन्दी माध्यम कार्यान्वयन निदेशालय दिल्ली विश्वविद्यालय ।
- डॉ. सुभाष कश्यप, हमारी संसद, भारत की संसद एक परिचय, राष्ट्रीय पुस्तक न्यास ।
10. डॉ. रूपा मंगलानी, भारतीय शासन एवं राजनीति, राजस्थान हिन्दी ग्रंथ अकादमी जयपुर ।

11- M.V. Pylee , Constitutional History of India , S.Chand.

12- D.D. Basu Indian Constitution

**संशोधित पाठ्यक्रम – बी.ए. प्रथम वर्ष के अंतर्गत
विशय – नृत्य (भरत नाट्यम)**

बी.ए. भाग (1) के लिये इस विषय में प्रायोगिक और सैद्धांतिक दो भाग होंगे। प्रायोगिक 50 अंक एवं सैद्धांतिक 100 अंक का होगा। इस हेतु 50-50 अंक के दो प्रश्नपत्र होंगे। प्रत्येक वर्ष के पूर्णांक कुल मिलाकर 150 अंक के होंगे।

क्र	विवरण		पूर्णांक	उत्तीर्णांक
1	सैद्धांतिक प्रथम प्रश्न पत्र	—	50	17
2	सैद्धांतिक द्वितीय प्रश्न पत्र	—	50	17
3	प्रायोगिक	—	50	17
योग			150	51

सैद्धांतिक (विस्तृत पाठ्यक्रम)

प्रथम प्रश्न पत्र

**शीर्षक – नृत्य का इतिहास एवं सामान्य अध्ययन
पेपर कोड (0153)**

1. नृत्य का इतिहास – सिंधु सभ्यता, वैदिक काल, रामायण एवं महाभारत काल में नृत्य की स्थिति।
2. पुराणों के आधार पर – उमाशंकर एवं नटवर श्री कृष्ण की नृत्य संबंधी कथाएँ – त्रिपुरडाह, उमा तांडव, मोहिनी-भस्मासुर, माखन लीला, कालिया दमन, रासलीला।
3. नृत्य का अन्य ललित कलाओं से संबंध – संगीत, साहित्य, चित्रकला एवं मूर्तिकला से संबंध।
4. नाट्य की उत्पत्ति कथा – भारत के नाट्यशास्त्र के प्रथम अध्याय में वर्णित।
5. लोकधर्मी नाट्य परंपरा – निम्न की संक्षिप्त जानकारी –
 1. रामलीला
 2. रासलीला
 3. भवाई
 4. माच

सैद्धांतिक (विस्तृत पाठ्यक्रम)
द्वितीय प्रश्न पत्र
शीर्षक – शास्त्रीय नृत्य सिद्धान्त
पेपर कोड (0154)

1. ताल की प्रारंभिक जानकारी – 1. ताल के दस प्राण।
2. लय – विलंबित, मध्य एवं द्रुत लय।
2. संक्षिप्त जीवन परिचय – भरत मुनि, आचार्य नंदिकेश्वर।
3. नृत्य के अभ्यास से शारीरिक एवं मानसिक लाभ।
4. भारतीय नाट्य परंपरा में गुरुवंदना का महत्व।
5. छत्तीसगढ़ी नृत्यों का सामान्य परिचय – 1. करमा 2. ददरिया
3. सुवा 4. रीना, परब

प्रायोगिक

1. मौखिक मुद्रा प्रदर्शन – (अभिनय दर्पण के अनुसार)
(1) शिवस्तुति (2) शिरोभेद (3) ग्रीवाभेद
(4) दृष्टिभेद (5) असंयुक्त हस्त (6) संयुक्त हस्त
2. कार्यक्रम विभाग – (1) शारीरिक अभ्यास
(2) आरंभिक – 05 अङ्क भेद
(पद + हस्त संचालन तीन काल में)
(3) पूजा नृत्य
(4) अलारिपु (तिस्त्रजाति)

प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
Ancient India History, Culture and Archaeology

बी.ए. प्रथम, द्वितीय एवं तृतीय वर्ष

B.A. Part I , II & III Year

पाठ्यक्रम
Syllabus

सत्र : 2018-19

Session 2018-19

(डॉ. दिनेश नंदिनी परिहार)
मिश्र)
सदस्य
केन्द्रीय अध्ययन मंडल

(डॉ. अनुप परसाई)
अध्यक्ष
केन्द्रीय अध्ययन मंडल

(डॉ. नितेश कुमार)
सदस्य
केन्द्रीय अध्ययन मंडल

कार्यवृत्त
केन्द्रीय अध्ययन मंडल
प्राचीन भारतीय इतिहास, संस्कृति एवं पुरातत्व

दिनांक 11.06.2018

प्राचीन भारतीय इतिहास, संस्कृति एवं पुरातत्व अध्ययन शाला, पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर में आज दिनांक 11.06.2018 को केन्द्रीय अध्ययन मंडल की बैठक 11 बजे प्रारंभ किया गया जिसमें अध्यक्ष प्रो. दिनेश नंदिनी परिहार एवं सदस्य डॉ. अनुप परसाई तथा डॉ. नितेश कुमार मिश्र उपस्थित हुये किन्तु कोरम के अभाव में बैठक स्थागित की गई।

अध्ययन मंडल की बैठक को पुनः 12 बजे से प्रारंभ किया गया जिसमें बी.ए. प्रथम, द्वितीय एवं तृतीय वर्ष के पाठ्यक्रमों पर विस्तृत चर्चा कर विषय के औचित्य के अनुसार संशोधित करते हुये बिन्दुवार निर्णय लिया गया।

संशोधित पाठ्यक्रम	संशोधन का औचित्य
<p>बी.ए. प्रथम वर्ष के पाठ्यक्रम में निम्न संशोधन किया गया।</p> <p>(1) प्रथम प्रश्न पत्र भारत का इतिहास (हड़प्पा सभ्यता से 319 ई.) को यथावत रखा गया।</p> <p>(2) द्वितीय प्रश्न पत्र प्राचीन भारतीय सामाजिक एवं आर्थिक संस्थाओं को विलोपित किया गया और उनके स्थान पर द्वितीय प्रश्न पत्र के रूप में भारत का राजनैतिक इतिहास 319 से 1300 ई.तक को जोड़ा गया।</p>	<p>पूर्व के पाठ्यक्रम में दोनों प्रश्न पत्र में कमबद्धता नहीं थी और राजनीतिक इतिहास में कमबद्धता अत्यंत आवश्यक है, इसलिए प्रथम वर्ष के लिए प्राचीन भारत का समग्र राजनीतिक इतिहास को कमबद्ध रूप से प्रथम वर्ष के पाठ्यक्रम में रखा गया है।</p>
<p>बी.ए. द्वितीय वर्ष में निम्न संशोधन किये गये।</p> <p>(1) भारत का राजनैतिक इतिहास 319 से 1300 ई.तक को और द्वितीय प्रश्न पत्र "अ" प्राचीन भारतीय धर्म दर्शन (वैदिक काल से 13 वीं शताब्दी) को विलोपित किया गया।</p> <p>(2) प्रथम प्रश्न पत्र प्राचीन भारतीय सामाजिक एवं आर्थिक संस्था को जोड़ा गया। जिसकी सभी ईकाईयाँ पूर्ववत् रहेगेंह</p> <p>(3) प्रश्न पत्र द्वितीय "ब" प्राचीन भारतीय राजनय प्रशासन को यथावत रखा गया।</p>	<p>प्राचीन भारतीय धर्म एवं दर्शन का प्रश्न पत्र बी.ए. द्वितीय वर्ष के विद्यार्थियों के लिए विषय वस्तु गंभीर और विस्तृत होने के कारण इसे विलोपित किया है और भारत के राजनीतिक इतिहास को कमबद्धता लाने के लिए प्रथम वर्ष में जोड़ा गया।</p>
<p>बी.ए. तृतीय वर्ष के पाठ्यक्रम में पूर्व के तीनों प्रश्न पत्रों को आंशिक संशोधन करते हुये यथावत रखा गया।</p> <p>(1) प्रथम प्रश्न पत्र भारतीय वास्तु तथा कला के मूल तत्व के द्वितीय इकाई में मंदिर वास्तु के उद्भव एवं विकास एवं विभिन्न शैलियों नागर, बेसर एवं द्रविड को जोड़ा गया।</p>	<p>भारतीय वास्तु तथा कला के प्रश्न पत्र में आंशिक परिवर्तन कर उसे कमबद्ध रूप देते हुए स्पष्ट किया गया।</p> <p>अभिलेख एवं पुरालिपि के प्रश्न पत्र में आंशिक परिवर्तन करते हुए कुछ इकाई 2 एवं 3 में अभिलेखीय महत्व को ध्यान में रखते हुए कुछ नये अभिलेखों को जोड़ा गया।</p> <p>यूनिट 4 एवं 5 को कमबद्धता स्वरूप प्रदान करते हुए कुछ परिवर्तन कर स्थानीय एवं राष्ट्रीय महत्व की मुद्राओं को जोड़ा गया।</p>
<p>इकाई IV में प्राचीन भारत मूर्ति पूजा के उद्भव एवं विकास को जोड़ा गया।</p> <p>(2) द्वितीय प्रश्न पत्र "अ" को यथावत रखा गया तथा "ब" पुराभिलेख एवं मुद्रा शास्त्र में आंशिक संशोधन करते हुये इकाईयों का पुर्ननिर्धारण किया गया।</p>	
<p>इकाई I को यथावत रखा गया इकाई II एवं III में निम्नलिखित ऐतिहासिक महत्व के कुछ अभिलेखों को</p>	

जोड़ा जिनका विवरण निम्न है।

इकाई II

- (1) अशोक का द्वितीय अभिलेख
- (2) अशोक का बारहवां अभिलेख
- (3) हेलियोडोरस का बेसनगर अभिलेख
- (4) गौतमी पुत्र सातकर्णी का नासिक अभिलेख
- (5) खारवेल का हाथिगुंफा अभिलेख
- (6) रुद्र दामन का जूनागढ़ अभिलेख

इकाई III

- (1) समुद्र गुप्त का प्रयाग प्रशस्ति अभिलेख
- (2) पुलकेशिन द्वितीय का एहोल लेख
- (3) हर्ष का बांसखेड़ा अभिलेख
- (4) महारानी वासटा का लक्ष्मण मंदिर अभिलेख
- (5) जाजल्ल देव प्रथम का रतनपुर अभिलेख

इकाई IV

इतिहास की पुर्नरचना में मुद्रा का महत्व, मुद्रा का उद्भव एवं प्राचीनता, मुद्रा निर्माण तकनीक तथा आहत सिक्के

इकाई V

कुषाण कालीन सिक्के, जनपदीय सिक्के (तक्षाशिला, कौशाम्बी, एरण), गुप्त कालीन मुद्रायें, समुद्रगुप्त, चन्द्रगुप्त द्वितीय एवं कुमारगुप्त की स्वर्ण रजत एवं ताम्र मुद्रायें स्थानीय मुद्रायें (शरभपुरीय, नलवंशीय एवं कलचुरी राजवंश)।

- बी.ए. तृतीय वर्ष के प्रायोगिकीय का पाठ्यक्रम यथावत रहेगा।

नोट— बी.ए. प्रथम, द्वितीय एवं तृतीय वर्ष के सभी सातों प्रश्न पत्र का पॉचों इकाईयों का सत्यापित संशोधित एवं टंकित पाठ्यक्रम अंग्रेजी में अनुवाद के साथ केन्द्रीय अध्ययन मंडल कार्यवृत्त रजिस्टर में साथ संलग्न किया गया है।

(प्रो.दिनेश नंदिनी परिहार)
अध्यक्ष
केन्द्रीय अध्ययन मंडल

(डॉ. अनुप परसाई)
सदस्य
केन्द्रीय अध्ययन मंडल

(डॉ. नितेश कुमार मिश्र)
सदस्य
केन्द्रीय अध्ययन मंडल

बी.ए. प्रथम वर्ष
प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
प्रथम : प्रश्न-पत्र
B.A. Part I Paper I
भारत का राजनीतिक इतिहास (पेपर कोड 0133)
(हड़प्पा संस्कृति से 319 ई. तक)
Political History of India (Harappa Culture to 319 A.D.)

पूर्णांक : 75

उद्देश्य : इस पाठ्यक्रम का उद्देश्य छात्रों को संबंधित कालखण्ड के राजनीतिक इतिहास की समुचित जानकारी देना है।

- इकाई- 1 (1) प्राचीन भारतीय इतिहास के स्रोत (Sources of Ancient Indian History)
(2) हड़प्पा तथा समकालीन ताम्रश्रम संस्कृतियों (Harappa and Contemporary Chalcolithic Culture)
(3) वैदिक युग (Vedic Age)
- इकाई- 2 (1) महाजन पद युग (Mahajanpada Age)
(2) मगध साम्राज्य का उत्कर्ष (Rise of Magadha Kingdom)
- इकाई- 3 (1) सिकन्दर का आक्रमण और उसके प्रभाव (Alexander's Invasion and its impact)
(2) मौर्य साम्राज्य का उत्थान और उसके प्रभाव (Rise of Mauryan empire and its impact)
- इकाई- 4 (1) हिन्द-यूनानी (Indo-Greeks)
(2) शुंग (Shungas)
(3) सातवाहन (Satvahanas)
(4) शक-क्षत्रप, पार्थियन (Shak-Kshatrapas, Parthian)
(5) खारवेल (Kharvela)
- इकाई- 5 (1) संगम युग (Sangam Age)
(2) कुषाण (Kushanas)
(3) मालव, यौधेय, अर्जुनायन तथा औदुम्बर (Malavas, Youdheyas, Arjunayana and Audumbara)
(4) नागवंश (Nagas)

सहायक ग्रंथ :

- | | |
|--|--|
| 1. एच.सी. रायचौधरी | - प्राचीन भारत का राजनीतिक इतिहास |
| 2. के.ए. नीलकंठ शास्त्री | - दक्षिण भारत का इतिहास |
| 3. कृष्णदत्त बाजपेयी तथा विमलचन्द्र पांडेय | - प्राचीन भारत का इतिहास |
| 4. विमल चन्द्र पांडेय | - प्राचीन भारत का राजनीति तथा सांस्कृतिक इतिहास भाग एक |
| 5. किरन कुमार थप्याल | - सैधव सम्यता |
| 6. गुलाम, याजदानी (संपा.) | - दकन का इतिहास |
| 7. राजबली पाण्डेय | - प्राचीन भारत |
| 8. H.C. Roycoudhary | - Political History of Ancient India |
| 9. R.C. Majumdar (Ed.) | - The Age of Imperial Unity |
| 10. Romila Thaper | - History of India |
| 11. K.A. Nilkanta Shastri | - History of South India |
| 12. व्ही.डी.झा. सुभिता पाण्डेय, डॉ.ओम प्रकाश | - Ashoka and the declaim of Moury empire |

बी.ए. प्रथम वर्ष
प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
प्रथम : प्रश्न-पत्र
B.A. Part I Paper II
भारत का राजनीतिक इतिहास (319 ई.से 1300 ई. सन् तक)
Political History of India (From 319 A.D. to 1300 A.D.)

पूर्णांक : 75

उद्देश्य : इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को संबंधित कालखण्ड के राजनीतिक इतिहास का समुचित ज्ञान प्रदान करना है।

- इकाई- 1 (1) गुप्तों की उत्पत्ति एवं प्रारंभिक इतिहास (Rise of Guptas and their early History)
(2) चन्द्रगुप्त प्रथम, रामगुप्त, समुद्रगुप्त (Chandragupta – I, Ramagupta, Samudragupta)
(3) कुमारगुप्त प्रथम, स्कन्दगुप्त (Kumargupta – I, Shandgupta)
(4) वाकाटक राजवंश, गुप्त-वाकाटक सम्बन्ध (Vakataka Dynasty, Gupta Vakataka relation)

- इकाई- 2 (1) परवर्ती गुप्त राजवंश (Later Gupta Rulers)
(2) मौखरी (Maukharis)
(3) वर्धन राजवंश और हर्ष का प्रशासन (Vardhana Dynasty and Administration of Harsha)

- इकाई- 3 (1) बादामी के चालुक्य (Chalukyas of Badami)
(2) कांची के पल्लव (Pallavas of Kanchi)
(3) चोल तथा उनका प्रशासन (Cholas and their administration)

- इकाई- 4 (1) गुर्जर प्रतिहार (Gurjara Pratihara)
(2) राष्ट्रकूट (Rashtrakutas)
(3) पाल (Palas)
(4) गाहड़वाल (Gahadwalas)

- इकाई- 5 (1) चन्देल (Chandela)
(2) परमार (Parmaras)
(3) चाहमान (Chahmanas)
(4) त्रिपुरी के कलचुरि (Kalachuris of Tripuri)
(5) रतनपुर के कलचुरि (Kalachuris of Ratanpur)

अनुशंसित पुस्तके :

- | | |
|---|---|
| 1. उदयनारायण राय | - गुप्त राजवंश तथा उसका इतिहास (नया संस्करण) 1988 |
| 2. श्री राम गोयल | - भारत का राजनैतिक इतिहास भाग 2 एवं 3 |
| 3. श्री राम गोयल | - गुप्त साम्राज्य का इतिहास |
| 4. Ashvini Agrawal | - Rise and Fall of the imperial Gupta |
| 5. विशुद्धानंद पाठक | - उत्तर भारत का राजनीतिक इतिहास |
| 6. अवध बिहारी लाल अवस्थी | - राजपूत राजवंश |
| 7. डी.सी.गांगुली | - परमार राजवंश |
| 8. भगवती प्रसाद पांथरी | - मौखरी और पुष्यभूमि राजवंश |
| 9. डॉ.के.ए.नीलकंठ शास्त्री | - दक्षिण भारत का इतिहास |
| 10. डॉ.बैजनाथ शर्मा | - हर्षवर्धन |
| 11. R.C. Majumdar & A.D. Pusalkar (Ed.) | - The Classicale Age “The age of Imperial Unity”
The Strangle for Empire |
| 12. Majumdar, Roy Choudhary | - An Advanced History of India Vol. I |

पं. रविशंकर शुक्ल विश्वविद्यालय
रायपुर (छत्तीसगढ़)

पाठ्यक्रम

बी. ए.- 1 (कोड- 101) B.A.-1 (Code-101)
बी. ए. क्लासिक्स- 1 (कोड-061) B.A. CLASSICS-1 (Code-061)

परीक्षा : 2018- 19

कुलसचिव पं. रविशंकर शुक्ल विश्वविद्यालय
रायपुर (छत्तीसगढ़) की ओर से

संशोधित पाठ्यक्रम

बी. ए. भाग-1

हिन्दी साहित्य

प्रथम- प्रश्न पत्र

(प्राचीन हिन्दी काव्य)

पूर्णांक 75

(पेपर कोड- 0103)

उद्देश्य एवं प्रस्तावना-

प्राचीन से तात्पर्य है- आधुनिक काल से पूर्व का काल। सही अर्थ में हिन्दी भाषा और साहित्य का विकास आदिकाल से शुरू होता है। इसमें धार्मिक तथा ऐतिहासिक दो प्रकार का साहित्य मिलता है, जो प्रबंध, मुत्तक, रासो, फागु, चरित, सुभाषित आदि विविध काव्यरूपों में अभिव्यंजित है। मध्यकालीन साहित्य की पृष्ठभूमि के रूप में इसे प्रतिष्ठापित किया जाता है।

मध्यकालीन काव्य में भक्तिकाव्य, जहां लोक जागरण को स्वर देने वाला है, वहीं रीतिकाल अपने लौकिक- श्रृंगारिका, परिदृश्य में तत्कालीन सामाजिक, सांस्कृतिक, राजनीतिक स्थितियों को बेलौस अभिव्यंजित करता है। अतः भाषा, संस्कृति, विचार, मानवता, काव्यरूपता, लौकिकता- पारलौकिकता, आदि दृष्टियों से इसका अध्ययन अत्यावश्यक है।

पाठ्य विषय-

1. कबीर (कबीर- कांतिकुमार जैन, प्रारंभिक 50 साखियाँ)
2. जायसी- (संक्षिप्त पद्यावत- श्यामसुंदर दास, नागमती वियोग वर्णन)
3. सूर (भ्रमर गीत सार- सं. आचार्य रामचन्द्र शुक्ल, प्रारंभिक 25 पद)
4. तुलसी - "रामचरित मानस" के सुंदरकाण्ड से प्रारंभिक 30 दोहे चौपाई छंद साहित्य
5. घनानन्द (घनानन्द- सं. विश्वनाथ प्रसाद मिश्र, प्रारंभिक 25 छंद)

द्रुत पाठ हेतु निम्नांकित तीन कवियों का अध्ययन किया जावेगा- जिसमें से किन्हीं दो पर लघुउत्तरीय प्रश्न पूछे जायेंगे-

1. विद्यापति
2. रहीम
3. रसखान

अंक विभाजन-

1. व्याख्याएँ (3) - 21 अंक
2. आलोचनात्मक प्रश्न (2) - 24 अंक
3. लघुउत्तरीय प्रश्न (5) - 15 अंक
4. वस्तुनिष्ठ प्रश्न (15) - 15 अंक

संशोधित
बी. ए. भाग-1
हिन्दी साहित्य
द्वितीय- प्रश्न पत्र
हिन्दी कथा साहित्य
(पेपर कोड- 0104)

पूर्णांक 75

उद्देश्य एवं प्रस्तावना-

गद्य की प्रमुख विधाओं का इतना द्रुत विकास इनकी लोकप्रियता का प्रमाण प्रस्तुत करता है। इसमें आधुनिक जीवन, अपनी विविध कमियों के साथ यथार्थ रूप में अभिव्यंजित हुआ है। जीवन की अनुभूतियाँ, संवेदनाओं तथा विविध परिस्थितियों के साक्षात्कार के लिए इनका अध्ययन सर्वथा अपेक्षित है।

पाठ्य विषय-

व्याख्या एवं आलोचनात्मक प्रश्नों के लिए एक उपन्यास एवं आठ कहानीकारों की एक- एक प्रतिनिधि कहानी का अध्ययन आवश्यक है।

उपन्यास	1. प्रेमचंद	-	गबन
कहानी	1. प्रेमचंद	-	कफन
	2. जयशंकर प्रसाद	-	आकाश दीप
	3. यशपाल	-	परदा
	4. फणीश्वनाथ रेणु	-	ठेस
	5. मोहन राकेश	-	मलबे का मालिक
	6. भीष्म साहनी	-	चीफ की दावत
	7. गुलशेर खाँ शानी	-	जली हुई रस्सी
	8. रांगेय राघव	-	गदल

द्रुत पाठ के लिए निम्नांकित तीन कथाकारों का अध्ययन अपेक्षित है, जिनमें से किन्हीं दो पर लघुउत्तरीय प्रश्न पूछे जावेंगे-

1. उपेन्द्रनाथ अशक,
2. बाल शौरि रेड्डी
3. शिवानी

अंक विभाजन-	व्याख्या (3)	21 अंक
	आलोचनात्मक प्रश्न (2)	24 अंक
	लघुउत्तरीय प्रश्न (5)	15 अंक
	वस्तुनिष्ठ प्रश्न (15)	15 अंक

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.A. Part-I

MATHEMATICS

PAPER - I

ALGEBRA AND TRIGONOMETRY

- UNIT-I** Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.
- UNIT-II** Application of matrices to a system of linear (both homogeneous and nonhomogeneous) equations. Theorems on consistency of a system of linear equations. Relation between the roots and coefficients of general polynomial equations in one variable. Transformation of equations. Descartes's rule of signs. Solutions of cubic equations (Cardons method), Biquadratic equation.
- UNIT-III** Mappings, Equivalence relations and partitions. Congruence modulo n . Definition of a group with examples and simple properties. Subgroups, generation of groups, cyclic groups, coset decomposition, Lagrange's theorem and its consequences. Fermat's and Euler's theorems. Normal subgroups. Quotient group, Permutation groups. Even and odd permutations. The alternating groups A_n . Cayley's theorem.
- UNIT-IV** Homomorphism and Isomorphism of groups. The fundamental theorems of homomorphism. Introduction, properties and examples of rings, Subrings, Integral domain and fields Characteristic of a ring and Field.

TRIGONOMETRY :

- UNIT-V** De-Moivre's theorem and its applications. Direct and inverse circular and hyperbolic functions. Logarithm of a complex quantity. Expansion of trigonometrical functions. Gregory's series. Summation of series.

TEXT BOOK :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2000.
3. Chandrika Prasad, Text-Book on Algebra and Theory of equations, Pothishala Private Ltd., Allahabad.
4. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.

REFERENCES :

1. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, First Course in linear Algebra, Wiley Eastern, New Delhi, 1983.
2. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, Basic Abstract Algebra (2 edition), Cambridge University Press, Indian Edition, 1997.
3. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic linear Algebra with MATLAB, Key College Publishing (Springer-Verlag), 2001.
4. H.S. Hall and S.R. Knight, Higher Algebra, H.M. Publications, 1994.
5. R.S. Verma and K.S. Shukla, Text Book on Trigonometry, Pothishala Pvt. Ltd., Allahabad.

B.A. Part-I
MATHEMATICS
PAPER - II
CALCULUS

DIFFERENTIAL CALCULUS :

UNIT-I $\varepsilon - \delta$ definition of the limit of a function. Basic properties of limits. Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions.

UNIT-II Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in cartesian and polar coordinates.

INTEGRAL CALCULUS:

UNIT-III Integration of transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.

ORDINARY DIFFERENTIAL EQUATIONS :

UNIT-IV Degree and order of a differential equation. Equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x , y , p . Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.

UNIT-V Linear differential equations of second order. Transformation of the equation by changing the dependent variable/the independent variable. Method of variation of parameters. Ordinary simultaneous differential equations.

TEXT BOOK :

1. Gorakh Prasad, Differential Calculus, Pothishala Private Ltd. Allahabad.
2. Gorakh Prasad, Integral Calculus, Pothishala Private Ltd. Allahabad.
3. D.A. Murray Introductory Course in Differential Equations, Orient Longman (India), 1976.

REFERENCES :

1. Gabriel Klambauer, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum's outline series, Schaum Publishing Co. New York.
3. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
4. P.K. Jain and S.K. Kaushik, An Introduction to Real Analysis, S. Chand & Co. New Delhi, 2000.
5. G.F. Simmons, Differential Equations, Tata Mc Graw Hill, 1972.
6. E.A. Codington, An Introduction to Ordinary Differential Equations, Prentics Hall of India, 1961.
7. H.T.H. Piaggio, Elementary Treatise on Differential Equations and their Applications, C.B.S. Publishe & Distributors, Dehli, 1985.
8. W.E. Boyce and P.O. Diprima, Elementary Differential Equations and Boundary Value Problems, John Wiley, 1986.
12. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.

B.A. Part-I
MATHEMATICS
PAPER - III
VECTOR ANALYSIS AND GEOMETRY

VECTOR ANALYSIS :

- UNIT-I** Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl.
- UNIT-II** Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.
- UNIT-III** General equation of second degree. Tracing of conics. System of conics. Confocal conics. Polar equation of a conic.
- UNIT-IV** Sphere. Cone. Cylinder.
- UNIT-V** Central Conicoids. Paraboloids. Plane sections of conicoids. Generating lines. Confocal Conicoids. Reduction of second degree equations.

TEXT BOOKS :

1. N. Saran and S.N. Nigam, Introduction to vector Analysis, Pothishala Pvt. Ltd. Allahabad.
2. Gorakh Prasad and H.C. Gupta, Text Book on Coordinate Geometry, Pothishala Pvt. Ltd., Allahabad.
3. R.J.T. Bell, Elementary Treatise on Coordinate Geometry of three dimensions, Machmillan India Ltd. 1994.

REFERENCES :

1. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Company, New York.
2. Murray R. Spiegel, Vector Analysis, Schaum Publishing Company, New York.
3. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, 1999.
4. Shanti Narayan, A Text Book of Vector Calculus, S. Chand & Co., New Delhi.
5. S.L. Loney, The Elements of Coordinate Geometry, Macmillan and Company, London.
6. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of two Dimensions, Wiley Eastern Ltd., 1994.
7. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of three Dimensions, Wiley Eastern Ltd., 1999.
8. N. Saran and R.S. Gupta, Analytical Geometry of three Dimensions, Pothishala Pvt. Ltd. Allahabad.

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.A. Part-I (Mathematics)**

Paper-I (Algebra and Trigonometry)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Unit-I Symmetric, Skew symmetric, Hermitian and skew hermitian, matrices. Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, Column rank and rank of a matrix. Equivalence of column and row ranks. Eigen values, Eigen vectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.	Unit-I Symmetric, Skew symmetric, Hermitian and skew hermitian, matrices. Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, Column rank and rank of a matrix. Equivalence of column and row ranks. Eigen values, Eigen vectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.	पाठ्यक्रम का वह भाग जो कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।

प्रश्नपत्र का शेष भाग यथावत है।

Prof.H.K.Pathak

Prof.B.S.Thakur

Prof.M.A.Siddiqui

Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.A. Part-I (Mathematics)**

Paper-II (Calculus)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Unit-III Integration of irrational algebraic functions and transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.	Unit-III Integration of irrational algebraic functions and transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.	पाठ्यक्रम का वह भाग जो कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे
Unit-IV Degree and order of a differential equation. Equations of first order and first degree. Equations in which the variables are separable. Homogeneous equations. Linear equations and equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.	Unit-IV Degree and order of a differential equation. Equations of first order and first degree. Equations in which the variables are separable. Homogeneous equations. Linear equations and equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.	शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।

प्रश्नपत्र का शेष भाग यथावत है।

Prof.H.K.Pathak

Prof.B.S.Thakur

Prof.M.A.Siddiqui

Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.A. Part-I (Mathematics)**

Paper-III (VECTOR ANALYSIS AND GEOMETRY)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Unit-IV Plane the Straight line and the plane. Sphere. Cone. Cylinder.	Unit-IV Plane the Straight line and the plane. Sphere. Cone. Cylinder.	कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।
प्रश्नपत्र का शेष भाग यथावत है।		

Prof.H.K.Pathak

Prof.B.S.Thakur

Prof.M.A.Siddiqui

Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-I

Paper – I

INTRODUCTION TO SOCIOLOGY (Paper Code - 0115)

- UNIT-I **Sociology** : Meaning, Nature, scope, Subject matter and significance.
Basic concepts : Society, Community, institution, Association, group, Status and role.
- UNIT-II **Social Institutions**: Marriage, Family and kinship.
Culture and society: Culture, socialization, The individual and society, social control, norms and values.
- UNIT-III **Social Stratification**: Meaning, forms and theories.
Social Mobility: Meaning, forms and theories.
- UNIT-IV **Social change**: Meaning and patterns, types, factors, evolution and progress.
- UNIT-V **Social System and process**: Social System- meaning, characteristics and elements.
Social process- Meaning, elements, characteristics and types.

ESSENTIAL READINGS :-

- 1 Bottomore T.B., Sociology- A guide to Problems and Literature, Bombay. George Allen and unwin(India) 1972.
- 2 Inkeles, Alex, What is Sociology ? New Delhi, Prentice Hall of India 1987.
- 3 Jayram, N., Introductory Sociology, Madras Maomillan India 1988.
- 4 Johnson Harry, M., Sociology of systematic Introduction New Delhi Allied Publishers 1995.

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Head,

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Pt. Ravishankar Shukla University,
Raipur. (C.G.)

प्रपत्र -1

कक्षा : बी.ए. प्रथम वर्ष,

संकाय : सामाजिक विज्ञान


विषय : समाजशास्त्र

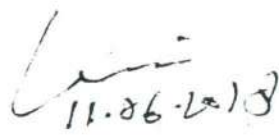
प्रश्न-पत्र : First (Paper code 0115 : Introduction to Sociology)

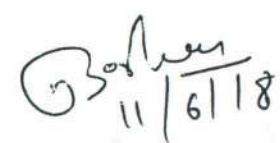
वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Introduction to Sociology	Introduction to Sociology	केन्द्रीय अध्ययन मण्डल के अध्यक्ष एवं सदस्यों द्वारा आंशिक संशोधन किया गया है, जो निम्नानुसार है:- 1. विषय में प्रथम प्रश्न-पत्र के शीर्षक को ध्यान में रखते हुए आंशिक संशोधन किया गया। 2. बी.ए. प्रथम वर्ष के विद्यार्थियों के बौद्धिक क्षमता को ध्यान रखते हुए आंशिक संशोधन का निर्णय लिया गया। 3. इस पाठ्यक्रम के माध्यम से विद्यार्थियों को विषय के आधारभूत जानाकारी से जानकारी से अवगत कराने हेतु आंशिक संशोधन किया गया है।



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11/6/2018
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Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-I

Paper –II

CONTEMPORARY INDIAN SOCIETY (Paper Code-0116)

- UNIT-I **Classical View about Indian Society:** Verna, Asharam, Karma, Dharma and Purusharth.
- UNIT-II **The Structure and composition of Indian society.**
Structure ; Village , Towns, Cities and Rural – Urban Linkage,
Compositions: Tribes, Dalits, Women and Minorities.
- UNIT-III **Basic Institutions of Indian Society:**
Caste system, Joint Family, Marriage and Changing dimensions.
- UNIT-IV **Familial Problems:**
Dowry, Domestic violence, Divorce, Intra-intergenerational conflict, problem of elderly.
- UNIT-V **Social Problems:**
Surrogate Motherhood, Live in Relationship, Regionalism, Communalism, Corruption, Youth unrest.

ESSENTIAL READINGS :-

- 1 Dube, S. C. 1995. Society in India, New Delhi: National Book Trust.
- 2 Mandelbaum, D.G. 1970. Society in India, Bombay: Poular Prakashan.
- 3 Shrinivas, M.N. 1973. Social Change in Modern India, California: University of California Press.
- 4 Shrinivas, M.N. 1990. Social Change Structure, New Delhi: Hindustan Publishing Corporation.
- 5 Uberoi Patricia, 1993. Family and Marriage In India, New Delhi: Oxford University Press.

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प्रपत्र -2

कक्षा : बी.ए. प्रथम वर्ष,

संकाय : सामाजिक विज्ञान


विषय : समाजशास्त्र

प्रश्न-पत्र : Second (Paper code 0116)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Foundation of Sociological Thought (Paper Code 0116)	Society in India	1. बी.ए. प्रथम वर्ष के छात्रों के बौद्धिकता की दृष्टि से प्रश्न पत्र के कान्टेंट जटिल था जिसे संशोधन किया गया है। 2. चूंकि प्रश्न-पत्र का शीर्षक संसमायिक किया गया है तथा इसी के आधार पर कॉन्टकेन्ट में आंशिक परिवर्तन किया गया है।




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11/06/2018




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विषय :- संस्कृत (कला संकाय)

बी.ए. प्रथम वर्ष

प्रथम प्रश्नपत्र

प्रश्न-पत्र का नाम - नाटक, व्याकरण और अनुवाद

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
<p>इकाई -3 1 सुबन्त (शब्दरूप) - राम, गति , भानु, पितृ, करिन्, भूभृत्, कर्तृ, चन्द्रमस्, भगवत्, आत्मन्, लता, मति, नदी,धेनु, वधू , मातृ, फल, वारि मधु, वाच्, रात्रि, सर्व,तद्, एतद्, यद्, इदम्, जगत् अस्मद्, युष्मद्, एक, द्वि, त्रि, चतुर् तिङन्त (धातुरूप) - भ्वादि, दिवादि, तुदादि, चुरादि गण के दिवादि, तुदादि, चुरादि गण के धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप अतिरिक्त अस् एवं कृ धातुओं के लट्, लोट्, लङ् और विधिलिङ् लकारों के रूप एवं अस् और कृ धातुओं के भी लकार के रूप ।</p>	<p>इकाई -3 1 सुबन्त (शब्दरूप) - राम, मुनि, भानु, पितृ, करिन्, कर्तृ, आत्मन्, लता, मति, नदी, मातृ, फल, सर्व, तद्, एतद्, यद्, इदम्, अस्मद्, युष्मद् । 2 तिङन्त (धातुरूप) - भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप 3. अपठित गद्यांश पर आधारित प्रश्न</p>	<p>छत्तीसगढ़ लोक सेवा आयोग के पाठ्यक्रम के अनुरूप बिन्दु क्रं 3 (अपठित गद्यांश पर आधारित प्रश्न) का समावेश करने से छात्रों को इसका अभ्यास, लाभ मिल सकेगा ।</p> <p>नोट - पाठ्यक्रम के सन्तुलन को ध्यान में रखते हुए नवीन पाठ्यक्रम में किंचित् पाठ्यसामग्री सम्पादित की गई है तथा समस्त पाँचों इकाई के लिए समान रूप से 15 अंक निर्धारित किये गये हैं ।</p>

सत्र 2018-19 से प्रस्तावित (संशोधित दिनांक 20.08.2018)

बी.ए. प्रथम वर्ष

संस्कृत साहित्य

प्रथम प्रश्नपत्र

टीप – बी.ए. प्रथम वर्ष में संस्कृत साहित्य के दो प्रश्न-पत्र होंगे एवं दोनों प्रश्न-पत्र 75-75 अंकों के होंगे ।

नाटक, व्याकरण और अनुवाद

पूर्णांक – 75

इकाई -1	स्वप्नवासवदत्तम् – व्याख्या	अंक – 15
इकाई -2	स्वप्नवासवदत्तम् – समीक्षात्मक प्रश्न	अंक – 15
इकाई -3	1. सुबन्त (शब्दरूप) – राम, मुनि, भानु, पितृ, करिन्, कर्तृ, आत्मन्, लता, मति, नदी, धेनु, मातृ, फल, वारि, सर्व, तद्, एतद्, यद्, इदम्, अस्मद्, युष्मद् । 2. तिङन्त (धातुरूप) – भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप 3. अपठित गद्यांश पर आधारित प्रश्न	अंक – 15

नोट- शब्द रूप एवं धातु रूप के विकल्प के रूप में अपठित गद्यांश पर आधारित प्रश्न भी पूछे जा सकते हैं ।

इकाई -4	प्रत्याहार, संज्ञा, सन्धि और विभक्त्यर्थ	अंक – 15
इकाई -5	हिन्दी से संस्कृत में अनुवाद	अंक – 15

अनुशासित ग्रन्थ –

1. रचनानुवाद कौमुदी – डा. कपिलदेव द्विवेदी
2. संस्कृतस्य व्यावहारिकस्वरूपम् – डा. नरेन्द्र, श्री अरविन्द आश्रम
3. संस्कृतव्याकरण – श्रीधर वसिष्ठ
4. संस्कृत में अनुवाद कैसे करें – उमाकान्त मिश्र शास्त्री, प्रकाशक – भारती भवन
5. लघु सिद्धान्त कौमुदी – श्री महेश सिंह कुशवाहा, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी

विषय :- संस्कृत (कला संकाय)

बी.ए. प्रथम वर्ष

द्वितीय प्रश्नपत्र

प्रश्नपत्र का नाम – गद्य, कथा एवं साहित्येतिहास

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
इकाई -4 संस्कृत नाटक एवं कथा साहित्य का इतिहास	इकाई -4 वैदिक एवं पौराणिक साहित्य का सामान्य परिचय (वेद, ब्राह्मण, आरण्यक, उपनिषद्, वेदांगों एवं पुराणों का संक्षिप्त परिचय)	नेट परीक्षा के पाठ्यक्रम की दृष्टि से नवीन पाठ्यसामग्री के समावेश से छात्र लाभान्वित होंगे । (वर्तमान पाठ्यसामग्री को द्वितीय वर्ष की पाठ्यसामग्री में सम्मिलित किया गया है ।)
इकाई -5 निम्नलिखित कवियों का परिचय – महाकवि कालिदास, महाकवि माघ, महाकवि भारवि, महाकवि श्रीहर्ष, महाकवि अम्बिकादत्त व्यास	इकाई -5 निम्नलिखित कवियों का परिचय – महाकवि कालिदास, महाकवि माघ, महाकवि भारवि, महाकवि श्रीहर्ष, बाणभट्ट, शूद्रक, विशाखदत्त, भवभूति ।	समस्त पाँचों इकाई के लिए समान रूप से 15 अंक निर्धारित किये गये हैं । तथा पाठ्यक्रम को सन्तुलित करने पाठ्यसामग्री (चार कवि-परिचय) का समावेश किया गया है ।

सत्र 2018-19 से प्रस्तावित
बी.ए. प्रथम वर्ष
संस्कृत साहित्य
द्वितीय प्रश्नपत्र
गद्य, कथा एवं साहित्येतिहास

पूर्णांक - 75

इकाई -1	शुकनासोपदेशः - व्याख्या	अंक - 15
इकाई -2	हितोपदेशः (मित्रलाभः) - व्याख्या	अंक - 15
इकाई -3	शुकनासोपदेश एवं हितोपदेश के समीक्षात्मक प्रश्न	अंक - 15
इकाई -4	वैदिक एवं पौराणिक साहित्य का सामान्य परिचय (वेद, ब्राह्मण, आरण्यक, उपनिषद्, वेदांगों एवं पुराणों का संक्षिप्त परिचय)	अंक - 15
इकाई -5	निम्नलिखित कवियों का परिचय - महाकवि कालिदास, भारवि, माघ, श्रीहर्ष, विशाखदत्त, बाणभट्ट, शूद्रक, विशाखदत्त, भवभूति ।	अंक - 15

अनुशासित ग्रन्थ -

1. शुकनासोपदेश - प्रकाशक - मोतीलाल बनारसीदास, वाराणसी
2. हितोपदेश (मित्रलाभ) - प्रकाशक - मोतीलाल बनारसीदास, वाराणसी
3. वैदिक साहित्य और संस्कृति - आचार्य बलदेव उपाध्याय
4. संस्कृत साहित्य का इतिहास - आचार्य बलदेव उपाध्याय
5. संस्कृत साहित्य का अभिनव इतिहास - डा. राधावल्लभ त्रिपाठी, वि.वि. प्रकाशन,
सागर, म.प्र.



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

दूरभाष : 0771-2262802 (अकादमिक विभाग), 0771-2262540 (कुलसचिव कार्यालय)

क्रमांक 538/अका./2019

रायपुर, दिनांक 22/06/2019

प्रति,

प्राचार्य / प्राचार्या

संबद्ध समस्त महाविद्यालय

पं. रविशंकर शुक्ल विश्वविद्यालय

रायपुर (छ.ग.)

विषय :- स्नातक स्तर भाग-एक के पाठ्यक्रम बाबत।

संदर्भ :- संयुक्त संचालक, उच्च शिक्षा का पत्र क्रमांक 2456/315/आउशि/सम/2019, दिनांक 16.05.2019

महोदय / महोदया,

विषयांतर्गत संदर्भित पत्र के माध्यम से प्राप्त स्नातक स्तर भाग-एक के निम्नलिखित कक्षा / विषयों के परिवर्तित / संशोधित पाठ्यक्रम शिक्षा सत्र 2019-20 से प्रभावशील किया जाता है-

1. बी.ए. - आधार पाठ्यक्रम-हिन्दी भाषा, राजनीति, अर्थशास्त्र, संगीत, दर्शनशास्त्र, मानवविज्ञान, गणित, इतिहास, हिन्दी साहित्य, समाजशास्त्र, भूगोल, मनोविज्ञान, संस्कृत, सांख्यिकी, प्राचीन भारतीय इतिहास।
2. बी.कॉम. - आधार पाठ्यक्रम-हिन्दी भाषा, वाणिज्य।
3. बी.एस.सी. - जैविकी, मानवविज्ञान, बायोटेक्नोलॉजी, कम्प्यूटर साइंस, गणित, भौतिकशास्त्र, प्राणीशास्त्र, सूक्ष्मजीव विज्ञान, वनस्पतिशास्त्र, भूविज्ञान, इलेक्ट्रॉनिक्स, रसायन, सांख्यिकी, भूगोल, आधार पाठ्यक्रम-हिन्दी भाषा।
4. बी.एस.सी. (गृह विज्ञान) - आधार पाठ्यक्रम-हिन्दी भाषा, एवं गृहविज्ञान।

उपरोक्त विषयों को शिक्षा सत्र 2019-20 से संशोधित रूप में स्नातक स्तर भाग-एक के लिए प्रभावशील किया जाता है, स्नातक स्तर भाग-दो एवं तीन के पाठ्यक्रम यथावत् रहेंगे।

अतः आपसे अनुरोध है कि पाठ्यक्रम परिवर्तन / संशोधन से महाविद्यालय के शिक्षकों एवं छात्र-छात्राओं को अवगत कराने का कष्ट करेंगे।

संलग्न :- उपरोक्तानुसार।

21-06-19

विशेष कर्तव्यस्थ अधिकारी (अका.)

क्रमशः2



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

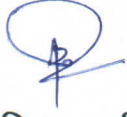
दूरभाष : 0771-2262802 (अकादमिक विभाग), 0771-2262540 (कुलसचिव कार्यालय)

-2-

पृ. क्र. 539 / अका. / 2019
प्रतिलिपि :-

रायपुर, दिनांक 22/06/2019

1. संयुक्त संचालक, उच्च शिक्षा को पत्र क्रमांक 2456/315/आउशि/सम/2019, दिनांक 16.05.2019 के परिपेक्ष्य में सूचनार्थ।
2. उपकुलसचिव परीक्षा, सहायक कुलसचिव गोपनीय विभाग,
3. कुलपति जी के सचिव/कुलसचिव के निज सहायक, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर को सूचनार्थ।


वरिष्ठ अधीक्षक (अका.)

संशोधित पाठ्यक्रम
बी.ए./बी.एस-सी./बी.कॉम./बी.एच.एस.-सी.
भाग - एक (आधार पाठ्यक्रम)
प्रश्न पत्र- प्रथम (हिन्दी भाषा)
(पेपर कोड -0101)

पूर्णांक- 75

नोट :-

1. प्रश्न पत्र 75 अंक का होगा।
2. प्रश्न पत्र अनिवार्य होगा।
3. इसके अंक श्रेणी निर्धारण के लिए जोड़े जायेंगे।
4. प्रत्येक इकाई के अंक समान होंगे।

पाठ्य विषय :-

इकाई-1

- क. पल्लवन, पत्राचार, अनुवाद, पारिभाषिक शब्दावली एवं हिंदी में पदनाम
ख. ईदगाह (कहानी) - मुंशी प्रेमचंद

इकाई-2

- क. शब्द शुद्धि, वाक्य शुद्धि, शब्द ज्ञान-पर्यायवाची शब्द, विलोम शब्द, अनेकार्थी शब्द, समश्रुत शब्द, अनेक शब्दों के लिए एक शब्द एवं मुहावरे-लोकोक्तियाँ
ख. भारत वंदना (कविता)- सूर्यकान्त त्रिपाठी निराला

इकाई-3

- क. देवनागरी लिपि - नामकरण, स्वरूप एवं देवनागरी लिपि की विशेषताएँ, हिंदी अपठित गद्यांश, संक्षेपण, हिंदी में संक्षिप्तीकरण
ख. भोलाराम का जीव (व्यंग्य) - हरिशंकर परसाई

इकाई-4

- क. कम्प्यूटर का परिचय एवं कम्प्यूटर में हिंदी का अनुप्रयोग
ख. शिकागो से स्वामी विवेकानंद का पत्र

इकाई-5

- क. मानक हिन्दी भाषा का अर्थ, स्वरूप, विशेषताएँ, मानक, उपमानक, अमानक भाषा
ख. सामाजिक गतिशीलता - प्राचीन काल, मध्यकाल, आधुनिक काल

मूल्यांकन योजना :-

प्रत्येक इकाई से एक-एक प्रश्न पूछा जाएगा। प्रत्येक प्रश्न में आंतरिक विकल्प होगा। प्रत्येक प्रश्न के 15 अंक होंगे। प्रत्येक प्रश्न के दो भाग 'क' और 'ख' होंगे एवं अंक क्रमशः 8 एवं 7 होंगे। प्रश्न-पत्र का पूर्णांक 75 निर्धारित है।

पाठ्यक्रम संशोधन का औचित्य :-

व्याकरण के बुनियादी ज्ञान, संप्रेषण, कौशल, सामाजिक संदेश एवं भाषायी दक्षता को ध्यान में रखते हुए यह पाठ्यक्रम प्रस्तावित है।

अध्यक्ष— हिंदी अध्ययन मंडल

आधार पाठ्यक्रम

FOUNDATION COURSE

PAPER - II

ENGLISH LANGUAGE (Paper Code-0102)

M.M. 75

- UNIT-1** Basic Language skills : Grammar and Usage.
Grammar and Vocabulary based on the prescribed text.
To be assessed by objective / multiple choice tests.
(Grammar - 20 Marks
Vocabulary - 15 Marks)
- UNIT-2** Comprehension of an unseen passage. 05
This should imply not only (a) an understanding of the passage in question, but also (b) a grasp of general language skills and issues with reference to words and usage within the passage and (c) the Power of short independent composition based on themes and issues raised in the passage.
To be assessed by both objective multiple choice and short answer type tests.
- UNIT-3** Composition : Paragraph writing 10
- UNIT-4** Letter writing (The formal and one Informal) 10
Two letters to be attempted of 5 marks each. One formal and one informal.
- UNIT-5** Texts : 15
Short prose pieces (Fiction and not fiction) short poems, the pieces should cover a range of authors, subjects and contexts. With poetry if may sometimes be advisable to include pieces from earlier periods, which are often simpler than modern examples. In all cases, the language should be accessible (with a minimum of explanation and reference to standard dictionaries) to the general body of students schooled in the medium of an Indian language.
Students should be able to grasp the contents of each piece; explain specific words, phrases and allusions; and comment on general points of narrative or argument. Formal Principles of Literary criticism should not be taken up at this stage.
To be assessed by five short answers of three marks each.
- BOOKS PRESCRIBED -**
English Language and Indian Culture - Published by M.P. Hindi Granth Academy Bhopal.
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Part - I

SYLLABUS FOR ENVIRONMENTAL STUDIES AND HUMAN RIGHTS

(Paper code-0828)

MM. 75

इन्वारमेंटल साईंसेस के पाठ्यक्रम को स्नातक स्तर भाग-एक की कक्षाओं में विश्वविद्यालय अनुदान आयोग के निर्देशानुसार अनिवार्य रूप से शिक्षा सत्र 2003-2004 (परीक्षा 2004) से प्रभावशील किया गया है। स्वशासी महाविद्यालयों द्वारा भी अनिवार्य रूप से अंगीकृत किया जाएगा।

भाग 1, 2 एवं 3 में से किसी भी वर्ष में पर्यावरण प्रश्न-पत्र उत्तीर्ण करना अनिवार्य है। तभी उपाधि प्रदाय योग्य होगी।

पाठ्यक्रम 100 अंकों का होगा, जिसमें से 75 अंक सैद्धांतिक प्रश्नों पर होंगे एवं 25 अंक क्षेत्रीय कार्य (Field Work) पर्यावरण पर होंगे।

सैद्धांतिक प्रश्नों पर अंक - 75 (सभी प्रश्न इकाई आधार पर रहेंगे जिसमें विकल्प रहेगा)

(अ) लघु प्रश्नोंत्तर - 25 अंक

(ब) निबंधात्मक - 50 अंक

Field Work - 25 अंकों का मूल्यांकन आंतरिक मूल्यांकन पद्धति से कर विश्वविद्यालय को प्रेषित किया जावेगा। अभिलेखों की प्रायोगिक उत्तर पुस्तिकाओं के समान संबंधित महाविद्यालयों द्वारा सुरक्षित रखेंगे।

उपरोक्त पाठ्यक्रम से संबंधित परीक्षा का आयोजन वार्षिक परीक्षा के साथ किया जाएगा।

पर्यावरण विज्ञान विषय अनिवार्य विषय है, जिसमें अनुत्तीर्ण होने पर स्नातक स्तर भाग-एक के छात्र/छात्राओं को एक अन्य विषय के साथ पूरक की पात्रता होगी। पर्यावरण विज्ञान के

सैद्धांतिक एवं फील्ड वर्क के संयुक्त रूप से 33% (तैंतीस प्रतिशत) अंक उत्तीर्ण होने के लिए अनिवार्य होंगे।

स्नातक स्तर भाग-एक के समस्त नियमित/भूतपूर्व/अमहाविद्यालयीन छात्र/छात्राओं को अपना फील्ड वर्क सैद्धांतिक परीक्षा की समाप्ति के पश्चात् 10 (दस) दिनों के भीतर संबंधित महाविद्यालय/परीक्षा केन्द्र में जमा करेंगे एवं महाविद्यालय के प्राचार्य/केन्द्र अधीक्षक, परीक्षकों की नियुक्ति के लिए अधिकृत रहेंगे तथा फील्ड वर्क जमा होने के सात दिनों के भीतर प्राप्त अंक विश्वविद्यालय को भेजेंगे।

UNIT-I THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

Definition, Scope and Importance

Natural Resources:

Renewable and Nonrenewable Resources

- (a) Forest resources: Use and over-exploitation, deforestation, Timber extraction, mining, dams and their effects on forests and tribal people and relevant forest Act.
- (b) Water resources: Use and over-utilization of surface and ground water, floods drought, conflicts over water, dams benefits and problems and relevant Act.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
- (d) food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging , salinity.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.
- (f) Land resources: Land as a resource, land degradation, man induced landslides soil erosion and desertification.

(12 Lecture)

UNIT-II ECOSYSTEM

(a) Concept, Structure and Function of and ecosystem

- Producers, consumers and decomposers.
- Energy flow in the ecosystem

- Ecological succession
- Food chains, food webs and ecological pyramids.
- Introduction, Types, Characteristics Features, Structure and Function of Forest, Grass, Desert and Aquatic Ecosystem.

(b) Biodiversity and its Conservation

- Introduction - Definition: genetic. species and ecosystem diversity
- Bio-geographical classification of India.
- Value of biodiversity: Consumptive use. productive use, social ethics, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as mega-diversity nation.
- Hot spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wild life conflict.
- Endangered and endemic species of India.
- Conservation of biodiversity: In situ and Ex-situ conservation of biodiversity.

(12 Lecture)

UNIT- III

(a) Causes, effect and control measures of

- Air water, soil, marine, noise, nuclear pollution and Human population.
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Disaster Management : floods, earthquake, cyclone and landslides.

(12 Lecture)

(b) Environmental Management

- From Unsustainable to sustainable development.
- Urban problems related to energy.

- Water conservation, rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns.
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.
- Wasteland reclamation
- Environment protection Act: Issues involved in enforcement of environmental legislation.
- Role of Information Technology in Environment and Human Health.

UNIT- IV

General background and historical perspective- Historical development and concept of Human Rights, Meaning and definition of Human Rights, Kind and Classification of Human Rights.

Protection of Human Rights under the UNO Charter, protection of Human Rights under the Universal Declaration of Human Rights, 1948.

Convention on the Elimination of all forms of Discrimination against women.

Convention on the Rights of the Child, 1989.

UNIT- V

Impact of Human Rights norms in India, Human Rights under the Constitution of India, Fundamental Rights under the Constitution of India, Directive Principles of State policy under the Constitution of India, Enforcement of Human Rights in India.

Protection of Human Rights under the Human Rights Act, 1993- National Human Rights Commission, State Human Rights Commission and Human Rights court in India.

Fundamental Duties under the Constitution of India.

Reference/ Books Recommended

1. SK Kapoor- Human rights under International Law and Indian Law.
2. HO Agrawal- Internation Law and Human Rights
3. एस.के. कपूर – मानव अधिकार
4. जे.एन. पान्डेय – भारत का संविधान
5. एम.डी. चतुर्वेदी – भारत का संविधान
6. J.N.Pandey - Constitutional Law of India
7. Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner

8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India, Email: mapin@icenet.net(R)
9. Bruinner R.C. 1989, Hazardous Waste Incineration. McGraw Hill Inc.480p
10. Clark R.S. Marine pollution, Clanderson press Oxford (TB)
11. Cuningham, W.P.Cooper. T.H.Gorhani, E & Hepworth. M.T,200
12. Dr. A.K.- Environmental Chemistry. Wiley Eastern Ltd.
13. Down to Earth, Center for Science and Environment (R)
14. Gloick, H.P. 1993 Water in crisis. pacific institute for studies in Deve. Environment & Security. Stockholm Eng. Institute. Oxford University, Press. m 473p.
15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)
16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p
17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p
18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p
19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)
20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)
21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p
22. Rao M.N. & Datta, A.K. 1987, Waste water treatment. Oxford & IBH pub.co.pvt. Ltd 345p
23. Sharma B.K. 2001, Environmental chemistry, Goel pub. House, Meerut
24. Survey of the Environment, The Hidu(M)
25. Townsend C. Harper J. And Michael Begon, Essentials of Ecology, Blackwell Science(TB)
26. Trivedi R.K.Handbook of Environment Laws, Rules, Guidelines, Compliances and Standards, Vol land II, Environment Media(R)
27. Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science publication (TB)
28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

**SYLLABUS
B.COM. PART-I**

GROUPING OF SUBJECTS AND SCHEME OF EXAMINATION

Subject			Max.	Min.
i)	Environmental Studies	75	100	33
	Field Work	25		
A.	Foundation Course			
	I. Hindi Language		75	26
	II. English Language		75	26
B.	Three Compulsory Groups			
Group-I				
	I. Financial Accounting	75 }	150	50
	II. Business Communication	75 }		
Group-II				
	I. Business Mathematics	75 }	150	50
	II. Business Reg. Framework	75 }		
Group-III				
	I. Business Environment	75 }	150	50
	II. Business Economics	75 }		

B.Com Part- I
Compulsory
Group – I Paper – I - Financial Accounting

OBJECTIVE – To Impart basic accounting knowledge as applicable to business.

Proposed Syllabus

UNIT –I

Accounting :An Introduction: Development, Definition, Needs, objectives; Branches of accounting; Basic Accounting Principles, Concepts & Conventions.

Accounting Standard : International Accounting Standard only outlines, Accounting Standard in India..

Accounting Transaction : Concept of Double Entry System, Concept of Capital & Revenue , Book of original records : Journal; Ledger; Sub-Division of Journal : Cashbook.

UNIT –II

Final Accounts; Trial balance; Manufacturing account; Trading account; Profit & loss account; Balance sheet; Adjustment entries.

Rectification of errors; Classification of errors; Location of errors; Rectification of errors; Suspense account; Effect on profit.

UNIT –III

Depreciation, Provisions, and Reserves; Concept of depreciation; Causes of deprecation; Depreciation, depletion amortization, Depreciation accounting; Methods of recording depreciation; Methods for providing depreciation; Depreciation of different assets; Depreciation of Replacement cost; Depreciation policy; as per Indian accounting Standard : provisions and Reserves. Accounts of Non-Trading Institutions.

UNIT –IV

Special Accounting Areas :

Hire-purchase and installment purchase system : Meaning of hire-purchase contract, Legal provision regarding hire-purchase contract; Accounting for goods of substantial sale values, and accounting records for goods for small values ; Installment purchase system ; After sales Service.

UNIT –V

Partnership Account : Dissolution of a Partnership Firm, Amalgamation of Partnership Firms, Conversion of Partnership Firm into Joint Stock Company.

Suggested Readings:

1. Gupta, R.L. and Radhaswamy. M; Financial Accounting ; Sultan Chand and Sons, New Delhi. (Both Hindi and English medium)
2. Monga J.R. Ahuja Girish, and Sehgal Ashok : Financial Accounting ; Mayur Paper Back, Noida.
3. Shukla. M.C., Grewal T.S. and Gupta, S.C. : Advanced Accounts; S. Chand & Co.. New delhi.
4. Singh B.K. ; Financial Accounting; Wisdom Publishing House, Varanasi.
5. S.M. Shukla; Financial Accounting ; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
6. Karim & Khanuja ; Financial Accounting ; SBPD Publishing House ; Agra. (Both Hindi and English medium)
7. Agrawal & Mangal ; Financial Accounting; Universal Publication. (Both Hindi and English medium)

बी.कॉम. भाग – एक
अनिवार्य
समूह-1 प्रश्नपत्र – 1 – वित्तीय लेखांकन

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 लेखांकन का अर्थ एवं क्षेत्र : आवश्यकता, विकास एवं परिभाषा, लेखांकन के उद्देश्य , पुस्तपालन एवं लेखांकन में अन्तर , लेखांकन की शाखाएं। लेखांकन सिद्धांत , लेखांकन मानक : अन्तर्राष्ट्रीय लेखांकन मानक (सिर्फ रूपरेखा) : भारत में लेखांकन मानक। लेखांकन व्यवहार : लेखांकन चक्र : पंजी (जर्नल) : डेबिट (विकलन) एवं क्रेडिट (समाकलन) के नियम, संयुक्त पंजी (जर्नल) प्रविष्टि, प्रारम्भिक प्रविष्टि : जर्नल एवं खाताबाही में सम्बन्ध, पूंजी एवं आगम : आय , व्यय एवं प्राप्तियों का वर्गीकरण।</p> <p>इकाई – 2 तलपट , अन्तिम खाते : निर्माणी खाता, व्यापार खाता, लाभ-हानि खाता, चिट्ठा एवं समायोजन प्रविष्टियाँ। अशुद्धियों का सुधार या संशोधन, अशुद्धियों का वर्गीकरण, अशुद्धियों की स्थिति, अशुद्धियों का सुधार, उचंत खाता लाभ पर प्रभाव।</p> <p>इकाई – 3 मूल्य ह्रास (अवक्षयण), आयोजन एवं संचय ;ह्रास की अवधारणा , ह्रास के कारण, ह्रास रिक्तता, अपलेखन ह्रास लेखांकन, ह्रास अभिलेखन की विधियाँ; विभिन्न सम्पत्तियों पर ह्रास आयोजन की विधियाँ; प्रतिस्थापन लागत पर ह्रास , भारतीय लेखांकन मानक के अनुसार लेखांकन नीतियाँ, आयोजन एवं संचय ;गैर-व्यापारिक संस्थाओं के खाते।</p> <p>इकाई – 4 विशेष लेखांकन क्षेत्र: (क) शाखा खाते : आश्रित शाखा, देनदार पद्धति , स्कन्ध एवं देनदार पद्धति। (ख) किराया क्रय एवं किस्त क्रय पद्धति : किराया क्रय अनुबन्ध का अर्थ, किराया क्रय अनुबन्ध संबंधित प्रॉवधान, अधिक मूल्य की वस्तुओं के लिए लेखांकन अभिलेख , किस्त क्रय पद्धति एवं क्रय पश्चात् सेवा।</p>	<p>इकाई – 1 लेखांकन का परिचय : विकास, परिभाषा, आवश्यकता, उद्देश्य , लेखांकन की शाखाएं ;लेखांकन के सिद्धांत , अवधारणा एवं परंपराएं। लेखांकन मानक : अन्तर्राष्ट्रीय लेखांकन मानक (सिर्फ रूपरेखा) : भारत में लेखांकन मानक। लेखांकन व्यवहार ;दोहरी प्रविष्टि प्रणाली की अवधारणा। पूंजी एवं आगम की अवधारणा, मूल प्रविष्टि की पुस्तकें: जर्नल, खाताबही, जर्नल का विभाजन : रोकड़ पुस्तक।</p> <p>इकाई – 2 तलपट , अन्तिम खाते : निर्माणी खाता, व्यापार खाता, लाभ-हानि खाता, चिट्ठा एवं समायोजन प्रविष्टियाँ। अशुद्धियों का सुधार या संशोधन, अशुद्धियों का वर्गीकरण, अशुद्धियों की स्थिति, अशुद्धियों का सुधार, उचंत खाता लाभ पर प्रभाव।</p> <p>इकाई – 3 मूल्य ह्रास (अवक्षयण), आयोजन एवं संचय ;ह्रास की अवधारणा , ह्रास के कारण, ह्रास रिक्तता, अपलेखन ह्रास लेखांकन, ह्रास अभिलेखन की विधियाँ; विभिन्न सम्पत्तियों पर ह्रास आयोजन की विधियाँ; प्रतिस्थापन लागत पर ह्रास , भारतीय लेखांकन मानक के अनुसार लेखांकन नीतियाँ, आयोजन एवं संचय ;गैर-व्यापारिक संस्थाओं के खाते।</p> <p>इकाई – 4 विशेष लेखांकन क्षेत्र: किराया क्रय एवं किस्त क्रय पद्धति : किराया क्रय अनुबन्ध का अर्थ, किराया क्रय अनुबन्ध संबंधित प्रॉवधान, अधिक मूल्य की वस्तुओं के लिए लेखांकन अभिलेख , किस्त क्रय पद्धति एवं क्रय पश्चात् सेवा।</p> <p>इकाई – 5 साझेदारी खाते : साझेदारी फर्म का विघटन, साझेदारी फर्मों का एकीकरण, साझेदारी</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5</p> <p>(क) साझेदारी खाते : साझेदारी की सारभूत विशेषताएँ, साझेदारी संलेख ; अन्तिम खाते , खाते बंद होने के पश्चात् समायोजन; स्थिर एवं परिवर्तनशील पूँजी, ख्याति-लेखांकन मानक 10 संयुक्त जीवन बीमा पॉलिसी, लाभ विभाजन अनुपात में परिवर्तन, (ख) साझेदारी फर्म का पुननिर्माण ; फर्म में साझेदार का प्रवेश; साझेदार का अवकाश ग्रहण; साझेदार की मृत्यु, फर्म का विघटन, लेखांकन प्रविष्टियाँ, साझेदारी फर्म का दिवालिया होना, फर्म के विघटन की विधियाँ, लेखांकन प्रविष्टियाँ, साझेदार का दिवालिया होना, वितरण ।</p>	<p>फर्म की संयुक्त स्कन्ध प्रमण्डल में परिवर्तन।</p>

Suggested Readings:

8. Gupta, R.L. and Radhaswamy. M; Financial Accounting ; Sultan Chand and Sons, New Delhi. (Both Hindi and English medium)
9. Monga J.R. Ahuja Girish, and Sehgal Ashok : Financial Accounting ; Mayur Paper Back, Noida.
10. Shukla. M.C., Grewal T.S. and Gupta, S.C. : Advanced Accounts; S. Chand & Co.. New delhi.
11. Singh B.K. ; Financial Accounting; Wisdom Publishing House, Varanasi.
12. S.M. Shukla; Financial Accounting ; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
13. Karim & Khanuja ; Financial Accounting ; SBPD Publishing House ; Agra. (Both Hindi and English medium)
14. Agrawal & Mangal ; Financial Accounting; Universal Publication. (Both Hindi and English medium)

B.Com Part- I

Compulsory

Group – II

Paper – I - Business Mathematics

OBJECTIVE – To enable the students to have such minimum knowledge of mathematics as is applicable to business and economic situations.

Proposed Syllabus

UNIT –I

Simultaneous Equations– Meaning, Characteristics, Methods of Solving Equations in Two Variables– Graphical, Substitution, Elimination and Cross Multiplication.
Linear Programming –Formulation of LLP : Graphical method of solution ; Problems relating to two variables including the case of mixed constraints .

UNIT –II

Matrices and Determinants : Definition of a matrix ; Type of a matrices ; Algebra of matrices ; Properties of determinants ; Calculation of values of determinants upto third order ;
Logarithm's & Antilogarithm's.

UNIT –III

Simple interest and Compound Interest .

Annuities : Types of annuities ; Present value and amount of an annuity, including the case of continuous compounding ; Valuation of simple loans and debentures;
Problems relating to sinking funds.

UNIT –IV

Ratio & Proportion.

Average, Percentage.

UNIT –V

Commission, Brokerage, Discount, Profit and loss.

Suggested Readings:

1. Dr. Amarnath Dikshit, Dr. Jinendra Kumar Jain; Business Mathematics ;Himalaya Publishing House, Mumbai. (Both Hindi and English medium)
2. N.K. Nag : Business Mathematics; Kalyani publication, New Delhi. .
3. Dr. V.K. Shukla. : Business Mathematics; Madhya Pradesh hindi Granth Academy: Bhopal.
4. S.M. Shukla; Business Mathematics; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
5. Dr. Karim & Agrawal ; Business Mathematics; SBPD Publishing House ; Agra. (Both Hindi and English medium)
6. Dr. Ramesh Mangal; Business Mathematics; Satish Printer and Publishers, Indore.

बी.कॉम. भाग – एक
अनिवार्य
समूह-2 प्रश्नपत्र – 1 – व्यावसायिक गणित

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 कलन : अवकलन : आंशिक अवकलन— द्वितीय क्रम तक, फलनों की समघातीयता एवं यूलर प्रमेय, उच्चिष्ठ एवं निम्निष्ठ – एक चर के द्वितीय या उच्च क्रम से जुड़े सवाल । लघुगणक ।</p> <p>इकाई – 2 आव्यूह एवं सारणिक : आव्यूह की परिभाषा , आव्यूह के प्रकार, आव्यूह बीजगणित, सारणिक के गुण, तृतीयक्रम के सारणिकों के मान की गणना, आव्यूह का सहखण्डज , पंक्ति या स्तम्भ मूल क्रियाएं, मूल पंक्ति या स्तम्भ क्रियाओं द्वारा आव्यूह का व्युत्क्रम ज्ञात करना , अद्वितीय हल रखने वाली तथा तीन से अधिक चर न रखने वाली युगपत् समीकरणों का हल ।</p> <p>इकाई – 3 रेखीय प्रक्रमन : रेखीय प्रक्रमन समस्या को गणितीय रूप में लिखना : ग्राफीक विधि से हल, समस्या का कोई सम्भव हल नहीं, अनेक हल, असीम समस्या का हल, व्यर्थ निबाध । परिवहन समस्या , अनुपात एवं समानुपात ।</p> <p>इकाई – 4 चक्रवृद्धि ब्याज एवं वार्षिकी : विभिन्न प्रकार की ब्याज दरें, वर्तमान मूल्य एवं मिश्रधन की गणना, वार्षिकी के प्रकार , वार्षिकी का वर्तमान मूल्य एवं मिश्रधन, ब्याज का सतत संयोजन, साधारण ऋण एवं ऋणपत्र का मूल्यांकन , शोधन निधि के प्रश्न ।</p> <p>इकाई – 5 औसत, प्रतिशतता, कमीशन एवं दलाली, लाभ एवं हानि</p>	<p>इकाई – 1 – युगपद् समीकरण – अर्थ, विशेषताएं, दो चर वाले समीकरण को हल करने की विधियाँ – रेखीय विधि, प्रतिस्थापन विधि, विलोपन विधि, वज्रगुणन विधि । रेखीय प्रक्रमन : रेखीय प्रक्रमन समस्या को गणितीय रूप में लिखना : ग्राफीक विधि से हल, द्विचर से संबंधित मिश्रित निबाध समस्याएं ।</p> <p>इकाई – 2 आव्यूह एवं सारणिक : आव्यूह की परिभाषा , आव्यूह के प्रकार, आव्यूह बीजगणित, सारणिक के गुण, तृतीयक्रम के सारणिकों के मान की गणना । लघुगणक एवं प्रतिलघुगणक ।</p> <p>इकाई – 3 साधारण ब्याज एवं चक्रवृद्धि ब्याज । वार्षिकी : वार्षिकी के प्रकार , वार्षिकी का वर्तमान मूल्य एवं मिश्रधन, ब्याज का सतत संयोजन, साधारण ऋण एवं ऋणपत्र का मूल्यांकन , शोधन निधि के प्रश्न ।</p> <p>इकाई – 4 अनुपात एवं समानुपात । औसत : साधारण, भारित एवं सांख्यिकीय औसत (समान्तर माध्य) । प्रतिशतता ।</p> <p>इकाई – 5 कमीशन, दलाली, बट्टा, लाभ एवं हानि । परिवहन समस्या ।</p>

Suggested Readings:

7. Dr. Amarnath Dikshit, Dr. Jinendra Kumar Jain; Business Mathematics ;Himalaya Publishing House, Mumbai. (Both Hindi and English medium)
8. N.K. Nag : Business Mathematics; Kalyani publication, New Delhi. .
9. Dr. V.K. Shukla. : Business Mathematics; Madhya Pradesh hindi Granth Academy: Bhopal.
- 10.S.M. Shukla; Business Mathematics; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
- 11.Dr. Karim & Agrawal ; Business Mathematics; SBPD Publishing House ; Agra. (Both Hindi and English medium)
- 12.Dr. Ramesh Mangal; Business Mathematics; Satish Printer and Publishers, Indore.

B.Com Part- I

Compulsory

Group – I Paper – II - BUSINESS COMMUNICATION

OBJECTIVE – To develop effective business communication skills among the students.

Proposed Syllabus

UNIT –I

Introducing Business Communication : Definitions, concept and Significance of communication, Basic forms of communicating ; Communication models and process; principles of effective communication; Theories of communication;

Self-Development and Communication ; Development of positive personal attitudes, SWOT analysis;

UNIT –II

Corporate Communication : Formal and Informal communication networks; Grapevine; Miscommunication (Barriers) ; improving communication. Practices in business communication ; Group discussions ; Seminars; Effective Listening : Principles of effective listening; Factor affective listening exercises; Oral, Written, and video session, Audience analysis and feedback.

UNIT –III

Writing skill : Business letters – Defination, concepts ,structure, advantages disadvantage, need and kinds of business letter ,Essentials of effective business letter. Good news and bad new letters; Office memorandum. Writing Resume and Letter of Job Application.

UNIT –IV

Report Writing : Introduction to a proposal, Short report and formal report , report preparation.

Oral Presentation : Principles of oral presentation, factor affecting presentation, sales presentation, training presentation, conducting surveys, speeches to motivate, presentation skill.

UNIT –V

Non-Verbal Aspects of Communicating. Body Language : Kinesics, Proxemics, Para Language.

Interviewing skills : Appearing in interviews; Conducting interviews; mock interview.

Modern Forms of Communicating : Fax; E-Mail; video conferencing; etc.

International Communication for global business.

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5 अशाब्दिक संचार के पहलू – दैहिक भाषा : समय एवं पार्श्व भाषा , प्रभावपूर्ण सूचना : प्रभावपूर्ण सूचने के सिद्धांत, प्रभावपूर्ण सूचने के कारक, मौखिक , लिखित एवं विडियो सत्र का व्यवहारिक अध्ययन। साक्षात्कार कुशलता : साक्षात्कार में शामिल होना, साक्षात्कार का आयोजन, जीवनवृत्त – सारांश लेखन एवं आवेदन पत्र। संचार के आधुनिक रूप – फ़ैक्स , ई मेल, वीडियो कॉन्फ़ेसिंग आदि अंतराष्ट्रीय संचार : सांस्कृतिक संवेदनशीलता एवं सांस्कृतिक संदर्भ , अंतराष्ट्रीय स्थितियों मे लेखन और प्रस्तुतीकरण करना : अंतराष्ट्रीय क्रियाओं में अंतराष्ट्रीय सांस्कृतिक कारक , वैश्विक व्यापार के संदर्भ में।</p>	<p>इकाई – 5 अशाब्दिक संचार के पहलू – दैहिक भाषा , समय एवं पार्श्व भाषा , साक्षात्कार कुशलता : साक्षात्कार में शामिल होना, साक्षात्कार का आयोजन, मॉक साक्षात्कार। संचार के आधुनिक रूप – फ़ैक्स , ई मेल, वीडियो कॉन्फ़ेसिंग आदि अंतराष्ट्रीय संचार : सांस्कृतिक संवेदनशीलता एवं सांस्कृतिक संदर्भ , भूमण्डलीय व्यावसाय के लिए अंतराष्ट्रीय संप्रेषण।</p>

Suggested Readings:

8. Dr. P. K. Agrawal, Dr. A.K. Mishra ; Business Communication ; Sahitya Bhawan Publication ; Agra (Hindi medium)
9. Balasubramanyam: Business Communication; Vikas Publishing House, Delhi. (English medium)
10. Dr. Vinod Mishra : Business Communication; Sahitya Bhawan Publication ; Agra. (Hindi medium)
11. Kaul : Effective Business Communication; Prentice Hall, New Delhi. (English medium)
12. Patri VR : Essentials of Communication ; Greenspan Publications, New Delhi. (English medium)
13. Senguin J : Business Communication; The Real World and Your Career, Allied Publishers , New Delhi. (English medium)
14. Dr. Mishra , Shukla & Patel ; Business Communication ; SBPD Publishing House, Agra. (Both Hindi and English medium)

B.Com Part- I
Compulsory
Group – II Paper – II – BUSINESS REGULATORY FRAMEWORK

OBJECTIVE – To provide a brief idea about the framework of Indian business laws.

Proposed Syllabus

UNIT –I

Law of Contract (1872) –I : Nature of contract ; Classification ; Offer and acceptance; Capacity of parties to contract, free consent, Considerations, Legality of object; Agreement declared void.

UNIT –II

Law of Contract (1872) - II : Performance of contract, Discharge of contract; Remedies for breach of contract.
Special contracts; Indemnity ; Guarantee; Bailment and pledge; Agency.

UNIT –III

Sale of Goods Act (1930) ;Formation of contracts of sale ;Goods and their classification, price, Conditions and warranties; Transfer of property in goods; Performance of the contract of sales; Unpaid seller and his rights; sale by auction; Hire purchase agreement.

UNIT –IV

Negotiable Instrument Act (1881) : Definition of negotiable instrument; Feature; Promissory note; Bill of exchange & cheque; Holder and holder in the due course; Crossing of a cheque, types of crossing; Negotiation; Dishonor and discharge of negotiable instrument.

UNIT –V

The Consumer Protection Act 1986 : Main Provision, Definition of consumer ,Consumer Disputes , Grievance redressal machinery ; Indian Partnership Act 1932.
Limited Liabilities Partnership Act 2008.
Introduction of Intellectual Property Right Act – Copyright, Patent & Trademark.

Suggested Readings:

1. Dr. P. K. Agrawal, Dr. A.K. Mishra ; Business Communication ; Sahitya Bhawan Publication ; Agra (Hindi medium)
2. Balasubramanyam: Business Communication; Vikas Publishing House, Delhi. (English medium)
3. Dr. Vinod Mishra : Business Communication; Sahitya Bhawan Publication ; Agra. (Hindi medium)
4. Kaul : Effective Business Communication; Prentice Hall, New Delhi. (English medium)
5. Patri VR : Essentials of Communication ; Greenspan Publications, New Delhi. (English medium)
6. Senguin J : Business Communication; The Real World and Your Career, Allied Publishers , New Delhi. (English medium)
7. Dr. Mishra , Shukla & Patel ; Business Communication ; SBPD Publishing House, Agra. (Both Hindi and English medium)

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समूह-1 प्रश्नपत्र – 2 – व्यावसायिक संचार

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 व्यावसायिक संचार परिचय : परिभाषा , अवधारणाएं एवं संचार का महत्व, संचार के आधारभूत प्रकार एवं मॉडल एवं प्रभावी संचार के सिद्धांत , प्रक्रिया , श्रोता विश्लेषण। आत्म विकास एवं संचार , सकारात्मक व्यक्तिगत दृष्टिकोण का विकास , स्वॉट विश्लेषण , मतों की परस्पर निर्भरता का प्रतिरूप।</p> <p>इकाई – 2 व्यावसायिक संस्था का संचार तंत्र :- औपचारिक एवं अनौपचारिक संचार तंत्र, अंगूरी लता संचार, संचार की बाधाएं एवं सुधार। व्यवहार में व्यावसायिक संचार :- सामूहिक परिचर्चा, साक्षात्कार, संगोष्ठी , प्रभावपूर्ण सूचना , व्यक्तिगत एवं सामूहिक प्रस्तुतीकरण एवं रिपोर्ट लेखन।</p> <p>इकाई – 3 लेखन कुशलता : व्यावसायिक संदेश की योजना एवं उसे संशोधित करना, प्रथम मसौदा, अंतिम मसौदा का पुनर्निर्माण , व्यावसायिक पत्र एवं ज्ञापन, प्रारूप : निवेदन पत्र , अनुकूल एवं प्रतिकूल संवाद पत्र, प्रेरक पत्र, विक्रय संबंधी पत्र, तकादे का पत्र या संग्रहण पत्र ,कार्यालयीन ज्ञापन व पत्र ।</p> <p>इकाई – 4 रिपोर्ट लेखन – एक प्रस्ताव का परिचय , लघु रिपोर्ट एवं औपचारिक रिपोर्ट ,रिपोर्ट लेखन की तैयारी। मौखिक प्रस्तुती : मौखिक प्रस्तुती के सिद्धांत , प्रस्तुतीकरण को प्रभावित करने वाले कारक, विक्रय प्रस्तुतीकरण , प्रशिक्षण प्रस्तुतीकरण, सर्वेक्षण आयोजित करना, प्रेरक भाषण, प्रभावी प्रस्तुती कौशल।</p>	<p>इकाई – 1 व्यावसायिक संचार परिचय : परिभाषा , अवधारणाएं एवं संचार का महत्व, संचार के आधारभूत प्रकार एवं मॉडल, प्रक्रिया एवं प्रभावी संचार के सिद्धांत । आत्म विकास एवं संचार , सकारात्मक व्यक्तिगत दृष्टिकोण का विकास, स्वॉट विश्लेषण ।</p> <p>इकाई – 2 व्यावसायिक संस्था का संचार तंत्र :- औपचारिक एवं अनौपचारिक संचार तंत्र, अंगूरी लता संचार, संचार की बाधाएं एवं सुधार। व्यवहार में व्यावसायिक संचार :- सामूहिक परिचर्चा, संगोष्ठी , प्रभावपूर्ण सूचना : प्रभावपूर्ण सूचने के सिद्धांत, प्रभावपूर्ण सूचने के कारक, मौखिक , लिखित एवं विडियो सत्र का व्यवहारिक अध्ययन, श्रोता विश्लेषण एवं प्रतिपुष्टी।</p> <p>इकाई – 3 लेखन कुशलता : व्यावसायिक पत्र – परिभाषा, अवधारणा, संरचना, गुण दोष , आवश्यकता एवं विभिन्न प्रकार के व्यावसायिक पत्र , प्रभावी व्यापारिक पत्र व्यवहार के मूल तत्व। अनुकूल एवं प्रतिकूल संवाद पत्र, कार्यालयीन ज्ञापन व पत्र । जीवनवृत्त लेखन एवं नौकरी के लिए आवेदन पत्र।</p> <p>इकाई – 4 रिपोर्ट लेखन – एक प्रस्ताव का परिचय , लघु रिपोर्ट एवं औपचारिक रिपोर्ट ,रिपोर्ट लेखन की तैयारी। मौखिक प्रस्तुती : मौखिक प्रस्तुती के सिद्धांत , प्रस्तुतीकरण को प्रभावित करने वाले कारक, विक्रय प्रस्तुतीकरण , प्रशिक्षण प्रस्तुतीकरण, सर्वेक्षण आयोजित करना, प्रेरक भाषण, प्रभावी प्रस्तुती कौशल।</p>

Suggested Readings:

1. Kuchal M.C. ; Business Law ; Vikas Publishing House, Delhi. (English medium)
2. Kapoor N.D. : Business Law ; Sultan Chand & Sons, New Delhi. (English medium)
3. Chandha P.R. : Business Law; Galgotia ,New Delhi. (English medium)
4. Dr. J.K. Vaishnav : Business Law; Sahitya Bhawan publication, Agra. (English medium)
5. Prof. R. C. Agrawal; Business Regulatory Framework; SBPD Publishing House, Agra. (Hindi medium)
6. K.R. Bulchandani; Business Law; Himalaya Publishing House , Mumbai. (Both Hindi and English medium)
7. R.L. Navlakha; Business Law; Ramesh Book depot, Jaipur. (Both Hindi and English medium)
8. Arun Kumar Gangele; Business Regulatory Framework; Ram Prasad & Sons, Agra. (Hindi medium)

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समूह-2 प्रश्नपत्र – 2 – व्यावसायिक नियमन रूपरेखा

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 भारतीय अनुबंध अधिनियम (1872) : अनुबंध की प्रकृति : वर्गीकरण , प्रस्ताव तथा स्वीकृति, अनुबंध के योग्य पक्षकार , पक्षकारों की स्वतंत्र सहमति , प्रतिफल, उद्देश्य की वैधता , व्यर्थ घोषित ठहराव : अनुबंध का निष्पादन , अनुबंधों की समाप्ति , अनुबंध भंग के उपाय एवं परिणाम।</p> <p>इकाई – 2 विशिष्ट अनुबंध : क्षतिपूर्ति , प्रतिभूति, निक्षेप, गिरवी अनुबंध, एजेंसी।</p> <p>इकाई – 3 वस्तु विक्रय अधिनियम (1930) : वस्तु विक्रय अनुबंध का निर्माण , माल का वर्गीकरण , कीमत, शर्तें और आश्वासन , माल के स्वामित्व का हस्तांतरण, विक्रय अनुबंध का निष्पादन , अदत्त विक्रेता के अधिकार , नीलाम द्वारा विक्रय , किराया क्रय ठहराव।</p> <p>इकाई – 4 विनिमय साध्य विलेख अधिनियम (1881) : परिभाषाएं, विशेषताएं , प्रतिज्ञा पत्र, विनिमय विपत्र और धनादेश (चैक) : धारक तथा यथाविधिधारी , रेखांकित चैक, रेखांकन के प्रकार, परक्रामण, विनिमय साध्य विलेख का अनदारण व मुक्ति।</p> <p>इकाई – 5 उपभोक्ता संरक्षण अधिनियम (1986) : मुख्य विशेषताएं , उपभोक्ता की परिभाषा , उपभोक्ता विवाद निवारण अभिकरण। मुख्य प्रावधान , सूचना का अधिकार अधिनियम (2005) – मुख्य प्रावधान।</p>	<p>इकाई – 1 भारतीय अनुबंध अधिनियम (1872) : अनुबंध की प्रकृति : वर्गीकरण , प्रस्ताव तथा स्वीकृति, अनुबंध के योग्य पक्षकार , पक्षकारों की स्वतंत्र सहमति , प्रतिफल, उद्देश्य की वैधता , व्यर्थ घोषित ठहराव ।</p> <p>इकाई – 2 अनुबंध का निष्पादन , अनुबंधों की समाप्ति , अनुबंध भंग के उपाय एवं परिणाम। विशिष्ट अनुबंध : क्षतिपूर्ति , प्रतिभूति, निक्षेप , गिरवी अनुबंध, एजेंसी।</p> <p>इकाई – 3 वस्तु विक्रय अधिनियम (1930) : वस्तु विक्रय अनुबंध का निर्माण , माल का वर्गीकरण , कीमत, शर्तें और आश्वासन , माल के स्वामित्व का हस्तांतरण, विक्रय अनुबंध का निष्पादन , अदत्त विक्रेता के अधिकार , नीलाम द्वारा विक्रय , किराया क्रय ठहराव।</p> <p>इकाई – 4 विनिमय साध्य विलेख अधिनियम (1881) : परिभाषाएं, विशेषताएं , प्रतिज्ञा पत्र, विनिमय विपत्र और धनादेश (चैक) : धारक तथा यथाविधिधारी , रेखांकित चैक, रेखांकन के प्रकार, परक्रामण, विनिमय साध्य विलेख का अनदारण व मुक्ति।</p> <p>इकाई – 5 उपभोक्ता संरक्षण अधिनियम (1986) : मुख्य विशेषताएं , उपभोक्ता की परिभाषा , उपभोक्ता विवाद निवारण अभिकरण। भारतीय साझेदारी अधिनियम 1932। सीमित दायित्व वाली साझेदारी अधिनियम 2008। बौद्धिक संपदा अधिकार अधिनियम का परिचय – कॉपीराइट, पेटेंट एवं ट्रेडमार्क।</p>

Suggested Readings:

9. Kuchal M.C. ; Business Law ; Vikas Publishing House, Delhi. (English medium)
- 10.Kapoor N.D. : Business Law ; Sultan Chand & Sons, New Delhi. (English medium)
- 11.Chandha P.R. : Business Law; Galgotia ,New Delhi. (English medium)
- 12.Dr. J.K. Vaishnav : Business Law; Sahitya Bhawan publication, Agra. (English medium)
- 13.Prof. R. C. Agrawal; Business Regulatory Framework; SBPD Publishing House, Agra. (Hindi medium)
- 14.K.R. Bulchandani; Business Law; Himalaya Publishing House , Mumbai. (Both Hindi and English medium)
- 15.R.L. Navlakha; Business Law; Ramesh Book depot, Jaipur. (Both Hindi and English medium)
- 16.Arun Kumar Gangele; Business Regulatory Framework; Ram Prasad & Sons, Agra. (Hindi medium)

B.Com Part- I

Compulsory

Group – III Paper – I– BUSINESS ENVIRONMENT

OBJECTIVE – To acquainting the students with the emerging issues in business at the national and international level in the light of the policies of liberalization and globalization.

Proposed Syllabus

UNIT –I

Business Environment : Concept, Components and Importance ,Economic Trends (overview) : Income : Saving and investment ; Trade and balance of payment, Money and Finance .

UNIT –II

Problems of Growth : Unemployment ; Poverty ; Regional imbalances ; Social Injustice; Inflation ; Parallel economy ; Industrial sickness.

UNIT –III

Role of Government ; Monetary and fiscal policy ; Industrial policy ; Industrial licensing. Privatization ; Liberalisation, Globalisation Devaluation; Demonitisation; Export-Import policy.

UNIT –IV

Economic Planning in India : Need, objectives, Strategy; Review of Previous Plans, Planning Commission.
Foreign Exchange Management Act 2000 : Basic Concept and Main Provisions.

UNIT –V

International Environment ; Trends in World trade and the problems of developing countries; Foreign trade and economic growth; International economic groupings – GATT. ,WTO ,UNCTAD, World Bank, IMF; FDI.

Suggested Readings:

1. Agarwal A. N. : Indian Economy, Vikas Publishing House Delhi. (English medium)
2. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
3. Dutt R. and Sundharam K. Pm. ; Indian Economy; S. Chand , Delhi. (English medium)
4. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
5. Dr. V.C. Sinha; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)
6. Dr. J. K. Jain; Business Environment; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
7. Gupta & Pathak; Business Environment; Ram Prasad & Sons, Raipur. (Hindi medium)
8. S.K. Singh; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)

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समूह-3 प्रश्नपत्र – 1 – व्यावसायिक पर्यावरण

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 भारतीय व्यावसायिक पर्यावरण : अवधारणा, संघटक व महत्व। आर्थिक प्रवृत्तियों : आय, बचत एवं विनियोग, औद्योगिक प्रवृत्तियों; व्यापार एवं भुगतान सन्तुलन, मुद्रा , वित्त तथा कीमत।</p>	<p>इकाई – 1 व्यावसायिक पर्यावरण : अवधारणा, संघटक व महत्व, आर्थिक प्रवृत्तियों : आय, बचत एवं विनियोग; व्यापार एवं भुगतान सन्तुलन, मुद्रा एवं वित्त।</p>
<p>इकाई – 2 विकास की समस्याएँ : बेरोजगारी ,निर्धनता एवं क्षेत्रीय असन्तुलन, सामाजिक अन्याय, मुद्रास्फीति, समान्तर अर्थव्यवस्था , औद्योगिक रूग्णता।</p>	<p>इकाई – 2 विकास की समस्याएँ : बेरोजगारी ,निर्धनता एवं क्षेत्रीय असन्तुलन, सामाजिक अन्याय, मुद्रास्फीति, समान्तर अर्थव्यवस्था , औद्योगिक रूग्णता।</p>
<p>इकाई – 3 शासन की भूमिका : मौद्रिक एवं राजकोषीय नीति, औद्योगिक नीति, औद्योगिक लाइसेंसिंग नीति ,निजीकरण , अवमूल्यन, निर्यात-आयात नीति, विदेशी विनियोग का</p>	<p>इकाई – 3 शासन की भूमिका (वर्तमान परिदृश्य में) : मौद्रिक एवं राजकोषीय नीति, औद्योगिक नीति, औद्योगिक लाइसेंसिंग नीति ,निजीकरण , उदारीकरण, भूमण्डलीकरण, अवमूल्यन,</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>नियमन । इकाई – 4 पुर्व योजनाओं की समीक्षा , चालू पंचवर्षीय योजना : मुख्य रणनीति, संसाधनों आबंटन । इकाई – 5 अंतराष्ट्रीय पर्यावरण : अंतराष्ट्रीय व्यापारिक पर्यावरण , विश्व व्यापार की प्रवृत्ति एवं विकासशील देशों की समस्याएँ, विदेशी व्यापार एवं आर्थिक विकास , अंतराष्ट्रीय आर्थिक समूह- अंतराष्ट्रीय अर्थव्यवस्था की संस्थाये, विश्व व्यापार संगठन , व्यापार एवं प्रशुल्क एवं व्यापार संबंधि सामान्य समझौता (गैट) , विश्व बैंक , अंतराष्ट्रीय मुद्रा कोष , अंतराष्ट्रीय पुनर्निमाण एवं विकास बैंक, प्रति व्यापार , एफ. डी. आई. ।</p>	<p>विमुद्रिकरण निर्यात-आयात नीति, विदेशी विनियोग का नियमन । इकाई – 4 भारत में आर्थिक नियोजन : आवश्यकता , उद्देश्य एवं व्यूहरचना, पुर्व पंचवर्षीय योजनाओं की समीक्षा , चालू पंचवर्षीय योजना । विदेशी विनियम प्रबंध अधिनियम 2000 : अवधारणा एवं मुख्य प्रवधान । इकाई – 5 अंतराष्ट्रीय पर्यावरण : विश्व व्यापार की प्रवृत्ति एवं विकासशील देशों की समस्याएँ, विदेशी व्यापार एवं आर्थिक विकास , अंतराष्ट्रीय आर्थिक समूह- प्रशुल्क एवं व्यापार संबंधि सामान्य समझौता (गैट) , विश्व व्यापार संगठन, विश्व बैंक , अंतराष्ट्रीय मुद्रा कोष ,प्रत्यक्ष विदेशी निवेश, संयुक्त राष्ट्र व्यापार एवं विकास संगठन (अंकटाड) ।</p>

Suggested Readings:

9. Agarwal A. N. : Indian Economy, Vikas Publishing House Delhi. (English medium)
10. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
11. Dutt R. and Sundharam K. Pm. ; Indian Economy; S. Chand , Delhi. (English medium)
12. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
13. Dr. V.C. Sinha; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)
14. Dr. J. K. Jain; Business Environment; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
15. Gupta & Pathak; Business Environment; Ram Prasad & Sons, Raipur. (Hindi medium)
16. S.K. Singh; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)

B.Com Part- I

Compulsory

Group – III – Business Economics

Paper – II– BUSINESS ECONOMICS

OBJECTIVE – To acquaint the students with the principles of Business Economics as are applicable in business.

Proposed Syllabus

UNIT –I

Introduction : Definition ,Nature and Scope of Economics, Difference Between Micro and Macro Economics, Method of Economic Study : Inductive and Deductive Methods.

Basic problem of Economy, Working of Price Mechanism.

Utility Analysis: Measurements of Utility, Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility.

UNIT-II

Law of demand: Meaning and Definitions, Effecting Factors, Types ; Exception of Law of demand.

Elasticity of Demand : Concept, Definitions, Importance, Types and Measurement of Elasticity of Demand, Factors affecting the Elasticity of Demand.

UNIT –III

Production : Factors of Production ,their characteristics and importance.

Production Functions : Law of Variable Proportions, Return to scale and Equal Product Curve Analysis. Internal and external economies and diseconomies.

UNIT –IV

Market Structure – Concept , Characteristics, Classification. Determination of Price under condition of Perfect Competition, Imperfect Competition and Monopoly, Monopolistic Competition, Oligopoly and Duopoly.

UNIT –V

Theories of distribution, Marginal Productivity theory of distribution, Concept and theories of Wages, Rent, Interest & Profit.

Suggested Readings:

1. John P. Gould, Jr. and Edward P. Lazear: Micro economic theory; All India Traveller, Delhi. (English medium)
2. Koutsoyianni A. : Modern Microeconomics: Macmillan, New Delhi. (English medium)
3. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
4. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
5. M. L. Jhingan : Micro Economics, Vrinda publication, Delhi. (Both English and Hindi medium)
6. Dr. J. K. Jain; Business Economics; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
7. Dr. V.C. Sinha; Business Economics; SBPD Publishing House, Agra. (Both English and Hindi medium)
8. Dr. Jai Prakash Misra; Business Economics; Sahitya Bhawan Publication, Agra. (Hindi medium)

बी.कॉम. भाग – एक

अनिवार्य

समूह-3 प्रश्नपत्र – 2 – व्यावसायिक अर्थशास्त्र

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 परिचय : अर्थशास्त्र की मुख्य समस्याएं , कीमत संयंत्र के कार्य, मांग की लोच , मांग की लोच मापने की विधियां एवं अवधारणाएं : कीमत , आय तथा आडी लोच, औसत आगम, सीमान्त आगम एवं मांग की लोच , मांग की लोच का निर्धारण तथा मांग की लोच का महत्व।</p> <p>इकाई – 2 उत्पादन फलन, परिवर्तन अनुपात का नियम , समोत्पाद , विस्तार पथ, पैमाने के प्रतिफल , आंतरिक एवं बाह्य मितव्ययिता एवं अपमितव्ययिता।</p> <p>इकाई – 3 लागत अवधारणाएं , अल्पकालीन एवं दीर्घकालीन लागत वक्र, परम्परागत एवं आधुनिक विचारधारा। बाजार संरचना तथा व्यावसायिक निर्णयन, व्यावसायिक फर्म के उद्देश्य। (अ) पूर्ण प्रतियोगिता , लाभ अधिकतमीकरण तथा फर्म का साम्य , औद्योगिक अल्पकालीन एवं दीर्घकालीन पूर्ति वक्र, कीमत एवं उत्पाद निर्धारण। (ब) एकाधिकार : एकाधिकार में मूल्य निर्धारण , फर्म का साम्य , पूर्ण प्रतियोगिता एवं एकाधिकार में अन्तर ,एकाधिकार के अंतर्गत कीमत विभेद।</p> <p>इकाई – 4 बाजार संरचना: (अ)एकाधिकृत प्रतियोगिता : आशय एवं विशेषताएं , कीमत एवं उत्पाद निर्धारण , उत्पाद विभेद , विक्रय लागत, पूर्ण प्रतिस्पर्धा से तुलना , अतिरिक्त क्षमता सिद्धांत। (ब) अल्पाधिकार : विशेषताएं , कीमत एवं उत्पाद निर्धारण , परंपरागत मॉडल, कीमत नेतृत्व , कपटपूर्ण अल्पाधिकार।</p>	<p>इकाई – 1 परिचय: अर्थशास्त्र की परिभाषा, प्रकृति एवं क्षेत्र, व्यष्टि एवं समष्टि अर्थशास्त्र में भेद, आर्थिक अध्ययन की प्रणालियां : निगमन एवं आगमन। अर्थव्यवस्था की मूल समस्याएं, कीमत संयंत्र का कार्यकरण। उपयोगिता विश्लेषण – उपयोगिता की माप, सीमांत उपयोगिता ह्रास नियम , समसीमांत उपयोगिता नियम।</p> <p>इकाई – 2 मांग का नियम : अर्थ, परिभाषा , प्रभावित करने वाले घटक, मांग के रूप, मांग के नियम के अपवाद। मांग की लोच : अवधारणा, परिभाषा, महत्व, प्रकार एवं मापन की विधियां, मांग की लोच को प्रभावित करने वाले घटक।</p> <p>इकाई – 3 उत्पादन : उत्पादन के कारक ,उनकी विशेषताएं एवं महत्व। उत्पादन फलन : परिवर्तनशील अनुपातों का नियम , पैमाने का प्रतिफल ,समोत्पाद वक्र विश्लेषण। आंतरिक एवं बाह्य मितव्ययिता एवं अपमितव्ययिता।</p> <p>इकाई – 4 बाजार संरचना: अवधारणा, परिभाषाएं, विशेषताएं एवं वर्गीकरण। पूर्ण प्रतियोगिता, अपूर्ण प्रतियोगिता, एकाधिकारी प्रतियोगिता, एकाधिकृत प्रतियोगिता ,अल्पाधिकार एवं द्वयाधिकार में कीमत निर्धारण।</p> <p>इकाई – 5</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5 कीमत कारक– I सीमान्त उत्पादकता सिद्धांत तथा मांग कारक, पूर्ति की प्रकृति, पूर्ण प्रतियोगिता एवं एकाधिकार में मजदूरी दर का निर्धारण ,श्रम का शोषण। कीमत कारक – II – लगान अवधारणा , रिकार्डों का लगान सिद्धांत तथा लगान का आधुनिक सिद्धांत , ब्याज अवधारणा तथा ब्याज का सिद्धांत लाभ की प्रकृति , अवधारणा तथा लाभ के सिद्धांत।</p>	<p>वितरण का सिद्धांत : सीमान्त उत्पादकता का सिद्धांत , मजदूरी, लगान, ब्याज एवं लाभ की अवधारणा एवं सिद्धांत ।</p>

Suggested Readings:

9. John P. Gould, Jr. and Edward P. Lazear: Micro economic theory; All India Traveller, Delhi. (English medium)
10. Koutsoyianni A. : Modern Microeconomics: Macmillan, New Delhi. (English medium)
11. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
12. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
13. M. L. Jhingan : Micro Economics, Vrinda publication, Delhi. (Both English and Hindi medium)
14. Dr. J. K. Jain; Business Economics; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
15. Dr. V.C. Sinha; Business Economics; SBPD Publishing House, Agra. (Both English and Hindi medium)
16. Dr. Jai Prakash Misra; Business Economics; Sahitya Bhawan Publication, Agra. (Hindi medium)


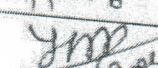



प्रपत्र

I

विषय/संकाय/प्रश्न-पत्र का नाम- **B.Com.(Computer Application)**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	COMPUTER FUNDAMENTALS AND OFFICE AUTOMATION	COMPUTER FUNDAMENTAL	Updation Required
2.	1 st Year	COMPUTERIZED FINANCIAL ACCOUNTING PRACTICAL	PC SOFTWARE AND MULTIMEDIA	Updation Required
3.	1 st Year		PRACTICAL	Updation Required

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/2018
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B. COM. (COMPUTER APPLICATION)

PAPER I

COMPUTER FUNDAMENTAL

Max Marks: 50

NOTE: - The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Introduction to Computers

Computer system: characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generations of Computers. Computer Systems: Micros, Minis and Main-frames. Limitations of Micro Computer. **Number systems:** Decimal Number system, Binary number system, Octal and Hexadecimal number system, 1's and 2's complement. **Codes:** ASCII, EBCDI Codes, Gray code and BCD. **Logic Gates:** AND, OR, NOT GATES and their Truth tables, NOR, NAND and XOR gates.

UNIT - II Computer Peripherals

Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry - Card Readers, Scanning Devices - O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices - Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche(COM) systems, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

UNIT - III Basic Components and Storage

Central Processing Unit: The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). **Storage Devices:** Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods - Sequential, Direct and Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

UNIT - IV Computer Software and Languages

System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler, Linker and Loader. Programming constructs, Algorithm and flowchart.

UNIT - V Introduction to MS DOS and Windows

Introduction to DOS: History and versions of DOS. Fundamentals of DOS: Physical Structure of the Disk, Compatibility of drives, Disks and DOS versions, Preparing Disks for use, Device Names. Getting Started with DOS: Booting Process (DOS, Windows, Unix), System Files and Command.com, Internal DOS Files and Directories, Elementary External DOS Commands, Creating a Batch Files, Additional Commands.

Microsoft Windows: Operating system-Definition and functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel-display properties, adding and removing software and hardware, setting date and time, screen saver and appearance. Using windows accessories.

TEXT BOOKS:

1. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
2. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
3. Fundamental of Information Technology, Chetan Shrivastava, Kalyani Publishers
4. Computers Today, Suresh K Basandra, Galgotia Publications.

Suresh
11-06-2018

Anuj
11/06/18
(Dr. A.K. Divedi)

Harsh
11/06/18
(L.K. Garg)

J.M. Ladd
11-06-18
Hari Khantari / Haral Parul

Dr. J. D. Duggal
11/06/18
(Dr. J. Duggal)

B. COM. (COMPUTER APPLICATION)

PAPER I

COMPUTER FUNDAMENTAL

Max Marks: 50

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Introduction to DOS: History and versions of DOS. Fundamentals of DOS: Physical Structure of the Disk, Compatibility of drives, Disks and DOS versions, Preparing Disks for use, Device Names. Getting Started with DOS: Booting Process (DOS, Windows, Unix), System Files and Command.com, Internal DOS Files and Directories, Elementary External DOS Commands, Creating a Batch Files, Additional Commands.

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4. Computers Today, Suresh K Basandra, Galgotia Publications.

Suresh
11-06-2018

Anu
11/06/18
(Dr. A.K. Divedi)

Paul
4/06/18
(C.L.K. Gavel)

JMP
11-06-18
Laxmi

Hari Shankar
Harsh Taneja
(Dr. J. Datta)

11/6/18
(Dr. J. Datta)

B. COM. (COMPUTER APPLICATION)
PAPER II
PC SOFTWARE AND MULTIMEDIA

Max Marks: 50

NOTE: - The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Using Office MS-Word

Introduction to word processing software and its features. Creating new document, Saving documents, Opening and printing documents. **Home Tab:** Setting fonts, Paragraph settings, Various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. **Insert Tab:** Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab:** Page setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelopes and Labels, Mail merge. **Review Tab:** Spelling and grammar check, New comment, Protect document. **View Tab:** Document views, Zoom, Window (New window, Split, Switch window).

UNIT - II Working with MS-Excel

Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. **Home Tab:** Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab:** Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). **Page Layout Tab :** Page setup options, Scale to fit(width, height, scale). **Formulas Tab :** Autosum (sum, average, min, max), logical(IF, and, or, not, true, false), Math & trig (sin, cos, tan, ceiling, floor, fact, mod, log), watch window. **Data Tab :** Get external data from MS Access, Sort and filter options, Data validation, Group and ungroup. **Review Tab:** Protect sheet, Protect workbook, Share workbook. **View Tab:** Page breaks, Page layout, Freezing panes, Split and hide.

UNIT - III Working with MS-PowerPoint

Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab:** New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. **Insert Tab:** Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box, word art, object. **Design Tab:** Page setup options, slide orientation, applying various themes, selecting background style and formatting it. **Animations Tab:** Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show & View Tab:** Start slid show options, setup options. **View tab:** Presentation views, colours and window option.

UNIT - IV Working with MS-Access

Front end and back end of application, Introduction to dbms, features of dbms, Creating blank databases, Saving it in accdb format. Defining data types in ms access. **Home Tab:** Datasheet view, design view, pivot chart view, pivot table view, sort and filter options. **Create Tab :** creating tables, creating reports, query wizard. **External Data Tab :** importing data from access and excel sheet, exporting data to excel and ms word. **Datasheet Tab:** Relationships, fields and columns options, Data type and formatting options.

UNIT - V Animations and Graphics

Basic Concept of 2D/3D Animation, Principle of animation, application of Multimedia, Hardware & software resources requirement for animation, introduction of various file formats (.mpeg, .gif, .jpeg, .mp4, .tif, .flv). Creating a new movie in flash :Get set Up, Input Text, Animate Text, drawing and painting with tools, brush, create basic shapes like Oval, Rectangle & Polystar Tools, tools working with object & filing the object, Transformation, object properties dialog box, creating layers motion tweeing, shape tweeing, mask layers, basic action scripts, importing sound through Flash.

TEXT BOOKS:

1. Microsoft Office 2007 fundamentals, L Story, D Walls.
2. MS Office, S. S. Shrivastava, Firewall Media.
3. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill.
4. FLASHMX Bible, Robert Reinhart.
5. Sams Teach Yourself Macromedia Flash 8 in 24 Hours, Phillip Kerman.
6. How to do everything with Macromedia, Bonnie Blake, Doug Sahlin.
7. Multimedia Making it works, Tay Vaughan, Tata McGraw Hills

Smruti

11/11/18

06/18

JMP
Taseer
11/06/18
11/16/19
Hani Shanton
Prasad Poudel

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Srinivas
11-06-2018
(Dr. Jayjay Kumar)

Anuj
11/6/2018
(Dr. A.K. Divedi)

Praveen
11/06/18
(L.K. Savel)

Jyoti
11/6/18
(Dr. J. Dnyaneshwar)

Harishankar
11-06-18
Harishankar Prasad Tandel



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)

दूरभाष : 0771-2262802 (अकादमिक विभाग), 0771-2262540 (कुलसचिव कार्यालय)

क्रमांक 538/अका./2019

रायपुर, दिनांक 22/06/2019

प्रति,

प्राचार्य/प्राचार्या

संबद्ध समस्त महाविद्यालय

पं. रविशंकर शुक्ल विश्वविद्यालय

रायपुर (छ.ग.)

विषय :- स्नातक स्तर भाग-एक के पाठ्यक्रम बाबत।

संदर्भ :- संयुक्त संचालक, उच्च शिक्षा का पत्र क्रमांक 2456/315/आउशि/सम/2019,
दिनांक 16.05.2019

महोदय/महोदया,

विषयांतर्गत संदर्भित पत्र के माध्यम से प्राप्त स्नातक स्तर भाग-एक के निम्नलिखित कक्षा/विषयों के परिवर्तित/संशोधित पाठ्यक्रम शिक्षा सत्र 2019-20 से प्रभावशील किया जाता है-

1. बी.ए. - आधार पाठ्यक्रम-हिन्दी भाषा, राजनीति, अर्थशास्त्र, संगीत, दर्शनशास्त्र, मानवविज्ञान, गणित, इतिहास, हिन्दी साहित्य, समाजशास्त्र, भूगोल, मनोविज्ञान, संस्कृत, सांख्यिकी, प्राचीन भारतीय इतिहास।
2. बी.कॉम. - आधार पाठ्यक्रम-हिन्दी भाषा, वाणिज्य।
3. बी.एस.सी. - जैविकी, मानवविज्ञान, बायोटेक्नोलॉजी, कम्प्यूटर साइंस, गणित, भौतिकशास्त्र, प्राणीशास्त्र, सूक्ष्मजीव विज्ञान, वनस्पतिशास्त्र, भूविज्ञान, इलेक्ट्रॉनिक्स, रसायन, सांख्यिकी, भूगोल, आधार पाठ्यक्रम-हिन्दी भाषा।
4. बी.एस.सी. (गृह विज्ञान) - आधार पाठ्यक्रम-हिन्दी भाषा, एवं गृहविज्ञान।

उपरोक्त विषयों को शिक्षा सत्र 2019-20 से संशोधित रूप में स्नातक स्तर भाग-एक के लिए प्रभावशील किया जाता है, स्नातक स्तर भाग-दो एवं तीन के पाठ्यक्रम यथावत् रहेंगे।

अतः आपसे अनुरोध है कि पाठ्यक्रम परिवर्तन/संशोधन से महाविद्यालय के शिक्षकों एवं छात्र-छात्राओं को अवगत कराने का कष्ट करेंगे।

संलग्न :- उपरोक्तानुसार।

21-06-19

विशेष कर्तव्यस्थ अधिकारी (अका.)

क्रमशः2



पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर (छ.ग.)


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-2-

पृ. क्र. 539 / अका. / 2019
प्रतिलिपि :-

रायपुर, दिनांक 22/06/2019

1. संयुक्त संचालक, उच्च शिक्षा को पत्र क्रमांक 2456/315/आउशि/सम/2019, दिनांक 16.05.2019 के परिपेक्ष्य में सूचनार्थ।
2. उपकुलसचिव परीक्षा, सहायक कुलसचिव गोपनीय विभाग,
3. कुलपति जी के सचिव/कुलसचिव के निज सहायक, पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर को सूचनार्थ।


वरिष्ठ अधीक्षक (अका.)

संशोधित पाठ्यक्रम
बी.ए./बी.एस-सी./बी.कॉम./बी.एच.एस.-सी.
भाग - एक (आधार पाठ्यक्रम)
प्रश्न पत्र- प्रथम (हिन्दी भाषा)
(पेपर कोड -0101)

पूर्णांक- 75

नोट :-

1. प्रश्न पत्र 75 अंक का होगा।
2. प्रश्न पत्र अनिवार्य होगा।
3. इसके अंक श्रेणी निर्धारण के लिए जोड़े जायेंगे।
4. प्रत्येक इकाई के अंक समान होंगे।

पाठ्य विषय :-

इकाई-1

- क. पल्लवन, पत्राचार, अनुवाद, पारिभाषिक शब्दावली एवं हिंदी में पदनाम
- ख. ईदगाह (कहानी) - मुंशी प्रेमचंद

इकाई-2

- क. शब्द शुद्धि, वाक्य शुद्धि, शब्द ज्ञान-पर्यायवाची शब्द, विलोम शब्द, अनेकार्थी शब्द, समश्रुत शब्द, अनेक शब्दों के लिए एक शब्द एवं मुहावरे-लोकोक्तियाँ
- ख. भारत वंदना (कविता)- सूर्यकान्त त्रिपाठी निराला

इकाई-3

- क. देवनागरी लिपि - नामकरण, स्वरूप एवं देवनागरी लिपि की विशेषताएँ, हिंदी अपठित गद्यांश, संक्षेपण, हिंदी में संक्षिप्तीकरण
- ख. भोलाराम का जीव (व्यंग्य) - हरिशंकर परसाई

इकाई-4

- क. कम्प्यूटर का परिचय एवं कम्प्यूटर में हिंदी का अनुप्रयोग
- ख. शिकागो से स्वामी विवेकानंद का पत्र

इकाई-5

- क. मानक हिन्दी भाषा का अर्थ, स्वरूप, विशेषताएँ, मानक, उपमानक, अमानक भाषा
- ख. सामाजिक गतिशीलता - प्राचीन काल, मध्यकाल, आधुनिक काल

मूल्यांकन योजना :-

प्रत्येक इकाई से एक-एक प्रश्न पूछा जाएगा। प्रत्येक प्रश्न में आंतरिक विकल्प होगा। प्रत्येक प्रश्न के 15 अंक होंगे। प्रत्येक प्रश्न के दो भाग 'क' और 'ख' होंगे एवं अंक क्रमशः 8 एवं 7 होंगे। प्रश्न-पत्र का पूर्णांक 75 निर्धारित है।

पाठ्यक्रम संशोधन का औचित्य :-

व्याकरण के बुनियादी ज्ञान, संप्रेषण, कौशल, सामाजिक संदेश एवं भाषायी दक्षता को ध्यान में रखते हुए यह पाठ्यक्रम प्रस्तावित है।

अध्यक्ष— हिंदी अध्ययन मंडल

आधार पाठ्यक्रम

FOUNDATION COURSE

PAPER - II

ENGLISH LANGUAGE (Paper Code-0102)

M.M. 75

UNIT-1 Basic Language skills : Grammar and Usage.

Grammar and Vocabulary based on the prescribed text.

To be assessed by objective / multiple choice tests.

(Grammar - 20 Marks

Vocabulary - 15 Marks)

UNIT-2 Comprehension of an unseen passage.

05

This should imply not only (a) an understanding of the passage in question, but also (b) a grasp of general language skills and issues with reference to words and usage within the passage and (c) the Power of short independent composition based on themes and issues raised in the passage.

To be assessed by both objective multiple choice and short answer type tests.

UNIT-3 Composition : Paragraph writing

10

UNIT-4 Letter writing (The formal and one Informal)

10

Two letters to be attempted of 5 marks each. One formal and one informal.

UNIT-5 Texts :

15

Short prose pieces (Fiction and not fiction) short poems, the pieces should cover a range of authors, subjects and contexts. With poetry if may sometimes be advisable to include pieces from earlier periods, which are often simpler than modern examples. In all cases, the language should be accessible (with a minimum of explanation and reference to standard dictionaries) to the general body of students schooled in the medium of an Indian language.

Students should be able to grasp the contents of each piece; explain specific words, phrases and allusions; and comment on general points of narrative or argument. Formal Principles of Literary criticism should not be taken up at this stage.

To be assessed by five short answers of three marks each.

BOOKS PRESCRIBED -

English Language and Indian Culture - Published by M.P. Hindi Granth Academy Bhopal.

Part - I

SYLLABUS FOR ENVIRONMENTAL STUDIES AND HUMAN RIGHTS

(Paper code-0828)

MM. 75

इन्वारमेंटल साईंसेस के पाठ्यक्रम को स्नातक स्तर भाग-एक की कक्षाओं में विश्वविद्यालय अनुदान आयोग के निर्देशानुसार अनिवार्य रूप से शिक्षा सत्र 2003-2004 (परीक्षा 2004) से प्रभावशील किया गया है। स्वशासी महाविद्यालयों द्वारा भी अनिवार्य रूप से अंगीकृत किया जाएगा।

भाग 1, 2 एवं 3 में से किसी भी वर्ष में पर्यावरण प्रश्न-पत्र उत्तीर्ण करना अनिवार्य है। तभी उपाधि प्रदाय योग्य होगी।

पाठ्यक्रम 100 अंकों का होगा, जिसमें से 75 अंक सैद्धांतिक प्रश्नों पर होंगे एवं 25 अंक क्षेत्रीय कार्य (Field Work) पर्यावरण पर होंगे।

सैद्धांतिक प्रश्नों पर अंक - 75 (सभी प्रश्न इकाई आधार पर रहेंगे जिसमें विकल्प रहेगा)

(अ) लघु प्रश्नोंत्तर - 25 अंक

(ब) निबंधात्मक - 50 अंक

Field Work - 25 अंकों का मूल्यांकन आंतरिक मूल्यांकन पद्धति से कर विश्वविद्यालय को प्रेषित किया जावेगा। अभिलेखों की प्रायोगिक उत्तर पुस्तिकाओं के समान संबंधित महाविद्यालयों द्वारा सुरक्षित रखेंगे।

उपरोक्त पाठ्यक्रम से संबंधित परीक्षा का आयोजन वार्षिक परीक्षा के साथ किया जाएगा।

पर्यावरण विज्ञान विषय अनिवार्य विषय है, जिसमें अनुत्तीर्ण होने पर स्नातक स्तर भाग-एक के छात्र/छात्राओं को एक अन्य विषय के साथ पूरक की पात्रता होगी। पर्यावरण विज्ञान के

सैद्धांतिक एवं फील्ड वर्क के संयुक्त रूप से 33% (तैंतीस प्रतिशत) अंक उत्तीर्ण होने के लिए अनिवार्य होंगे।

स्नातक स्तर भाग-एक के समस्त नियमित/भूतपूर्व/अमहाविद्यालयीन छात्र/छात्राओं को अपना फील्ड वर्क सैद्धांतिक परीक्षा की समाप्ति के पश्चात् 10 (दस) दिनों के भीतर संबंधित महाविद्यालय/परीक्षा केन्द्र में जमा करेंगे एवं महाविद्यालय के प्राचार्य/केन्द्र अधीक्षक, परीक्षकों की नियुक्ति के लिए अधिकृत रहेंगे तथा फील्ड वर्क जमा होने के सात दिनों के भीतर प्राप्त अंक विश्वविद्यालय को भेजेंगे।

UNIT-I THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

Definition, Scope and Importance

Natural Resources:

Renewable and Nonrenewable Resources

- (a) Forest resources: Use and over-exploitation, deforestation, Timber extraction, mining, dams and their effects on forests and tribal people and relevant forest Act.
- (b) Water resources: Use and over-utilization of surface and ground water, floods drought, conflicts over water, dams benefits and problems and relevant Act.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources.
- (d) food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging , salinity.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources.
- (f) Land resources: Land as a resource, land degradation, man induced landslides soil erosion and desertification.

(12 Lecture)

UNIT-II ECOSYSTEM

(a) Concept, Structure and Function of and ecosystem

- Producers, consumers and decomposers.
- Energy flow in the ecosystem

- Ecological succession
- Food chains, food webs and ecological pyramids.
- Introduction, Types, Characteristics Features, Structure and Function of Forest, Grass, Desert and Aquatic Ecosystem.

(b) Biodiversity and its Conservation

- Introduction - Definition: genetic. species and ecosystem diversity
- Bio-geographical classification of India.
- Value of biodiversity: Consumptive use. productive use, social ethics, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as mega-diversity nation.
- Hot spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wild life conflict.
- Endangered and endemic species of India.
- Conservation of biodiversity: In situ and Ex-situ conservation of biodiversity.

(12 Lecture)

UNIT- III

(a) Causes, effect and control measures of

- Air water, soil, marine, noise, nuclear pollution and Human population.
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Disaster Management : floods, earthquake, cyclone and landslides.

(12 Lecture)

(b) Environmental Management

- From Unsustainable to sustainable development.
- Urban problems related to energy.

- Water conservation, rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns.
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.
- Wasteland reclamation
- Environment protection Act: Issues involved in enforcement of environmental legislation.
- Role of Information Technology in Environment and Human Health.

UNIT- IV

General background and historical perspective- Historical development and concept of Human Rights, Meaning and definition of Human Rights, Kind and Classification of Human Rights.

Protection of Human Rights under the UNO Charter, protection of Human Rights under the Universal Declaration of Human Rights, 1948.

Convention on the Elimination of all forms of Discrimination against women.

Convention on the Rights of the Child, 1989.

UNIT- V

Impact of Human Rights norms in India, Human Rights under the Constitution of India, Fundamental Rights under the Constitution of India, Directive Principles of State policy under the Constitution of India, Enforcement of Human Rights in India.

Protection of Human Rights under the Human Rights Act, 1993- National Human Rights Commission, State Human Rights Commission and Human Rights court in India.

Fundamental Duties under the Constitution of India.

Reference/ Books Recommended

1. SK Kapoor- Human rights under International Law and Indian Law.
2. HO Agrawal- Internation Law and Human Rights
3. एस.के. कपूर – मानव अधिकार
4. जे.एन. पान्डेय – भारत का संविधान
5. एम.डी. चतुर्वेदी – भारत का संविधान
6. J.N.Pandey - Constitutional Law of India
7. Agarwal K.C. 2001 Environmental Biology, Nidi pub. Ltd. Bikaner

8. Bharucha Erach, the Biodiversity of India, Mapin pub. Ltd. Ahmedabad 380013, India, Email: mapin@icenet.net(R)
9. Bruinner R.C. 1989, Hazardous Waste Incineration. McGraw Hill Inc.480p
10. Clark R.S. Marine pollution, Clanderson press Oxford (TB)
11. Cuningham, W.P.Cooper. T.H.Gorhani, E & Hepworth. M.T,200
12. Dr. A.K.- Environmental Chemistry. Wiley Eastern Ltd.
13. Down to Earth, Center for Science and Environment (R)
14. Gloick, H.P. 1993 Water in crisis. pacific institute for studies in Deve. Environment & Security. Stockholm Eng. Institute. Oxford University, Press. m 473p.
15. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)
16. Heywood, V.H. & Watson, T.T.1995 Global Biodiversity Assessment, Cambridge Univ. Press 1140p
17. Jadhav H. & Bhosale, V.H. 1995 Environmental Protection and Law. Himalaya pub. House, Delhi 284p
18. Mckinney M.L.& School R.M.1996, environmental Science systems & solutions, web enhanced edition, 639p
19. Mhadkar A.K. Matter Hazardous, Techno-Science publication(TB)
20. Miller T.G.Jr. Environment Science, Wadsworth publication co. (TB)
21. Odum E.P.1971, Fundamentals of Ecology, W.B. Saunders Co. USA,574p
22. Rao M.N. & Datta, A.K. 1987, Waste water treatment. Oxford & IBH pub.co.pvt. Ltd 345p
23. Sharma B.K. 2001, Environmental chemistry, Goel pub. House, Meerut
24. Survey of the Environment, The Hidu(M)
25. Townsend C. Harper J. And Michael Begon, Essentials of Ecology, Blackwell Science(TB)
26. Trivedi R.K.Handbook of Environment Laws, Rules, Guidelines, Compliances and Standards, Vol land II, Environment Media(R)
27. Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science publication (TB)
28. Wanger K.D.1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

Raipur, dt. June 20th, 2018

To
Registrar
Pt. Ravishankar Shukla University
Raipur-492 010, C.G.

I

Subject: Regarding Correction/ Modification/ Upgradation of syllabus of Under Graduate Course (Discipline-Chemistry/ Faculty-Science).

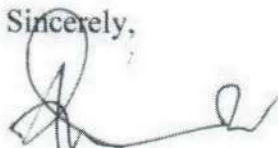
Reference: University letter no. 6507/ Acad/ CBS/2018, dt. 08-06-2018

Sir/ Madam,

This is in connection to the subject and reference and mentioned as above. As per the directives, meetings of Central Board of Studies (Chemistry) were held on 11th and 18th instant at School of Studies in Chemistry for correction/ modification/ upgradation of syllabus at UG level.

Accordingly, hard and soft copies of the newly designed syllabus are being sent for your kind perusals and for further and necessary action..

Sincerely,



(Dr. Manas Kanti Deb)
Chairman, Central Board of Studies
Professor & Head, School of Studies in Chemistry
Pt. Ravishankar Shukla University, Raipur-492010, C.G.
debmanas@yahoo.com
+919425503750

Enclosures:

1. New Syllabus (one Hard and one Soft copy)
2. Nine leaflets indicating justification for changes incorporated
3. One Register on Minutes of the Meetings conducted
4. Attendance record of the members

Meeting of Central Board of Studies(Chemistry): 18th June, 2018

Subject/ Faculty/ Name of Question PaperChemistry/ Science.....

Existing Syllabus	New Modified Syllabus	Justification of New Modified Syllabus
<p><u>B.Sc. PART-I</u> <u>PAPER I (Inorganic Chem)</u></p>		
<p>Unit-I (A: Atomic Structure) (B: Periodic Properties)</p>	<p>Fundamental particles removed. Atomic and ionic radii added. (Remaining part is same as existing)</p>	<p>Already there in Hr. Secondary syllabus To re-appropriate and updating. Unit-I, Part-B re-appropriated</p>
<p>Unit-II (Chemical Bonding)</p>	<p>No major changes compared to existing syllabus</p>	
<p>Unit-III (Chemical Bonding)</p>	<p>No major changes compared to existing syllabus</p>	
<p>Unit-IV (A: s-Block Elements) (B: Chemistry of Noble Gases)</p>	<p>Changed to- (A: s-Block Elements) (B: p-Block Elements)</p>	<p>'Oxidation Reduction' part moved to BSc-II. 'Acid and Bases' part moved to B.Sc-II in Part-A of Unit-V Changes have been made to maintain continuity in the topics</p>
<p>Unit-V (A. p-Block Elements) (B. Inorganic Chemical Analysis)</p>	<p>Changed into two parts as Part A- Chemistry of Noble Metals & Part B- Theoretical principles in Qualitative analysis</p>	<p>Reappropriation needed to strengthen the topic. Included because students do not practice much in Hr. Sec. level. (Graphene like hot topic is introduced)</p>
<p><u>Laboratory Course</u> (Semimicro Analysis)</p>	<p>Splitted in 4 sections</p> <ul style="list-style-type: none"> • Semimicro analysis • Acid-Base Titrations • Redox Titrations • Iodo/ Iodimetric Titrations 	<p>For developing enhanced experimental skills</p>

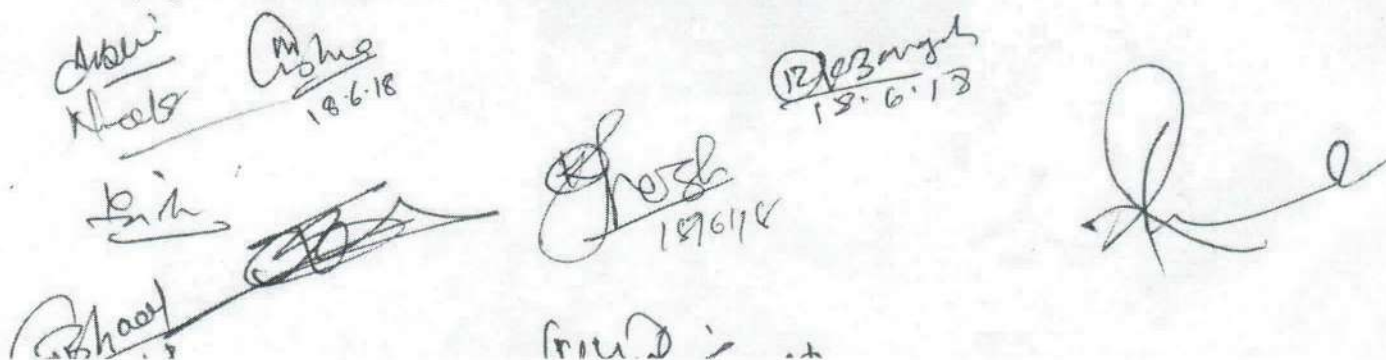
(Signature of members of Central Board of Studies)

Meeting of Central Board of Studies(Chemistry): 18th June, 2018

Subject/ Faculty/ Name of Question Paper **Chemistry/ Science**

Existing Syllabus	New Modified Syllabus	Justification of New Modified Syllabus
<u>B.Sc. PART-I</u> <u>PAPER II (Organic Chem)</u>		
Unit-I Basics of Organic Chemistry	Added new topics- 'influence of hybridization on bond properties' & 'nitrenes'	Important topics, for upgradation
Unit-II Introduction to Stereochemistry	Added new topics- 'Newmann and Sawhorse Projection formulae and their inter-conversions	Important topics, for upgradation
Unit-III Conformational Analysis of Alkanes	Minor addition of topics (e.g. sugars and theory of strain rings)	for upgradation
Unit-IV Aromatic Hydrocarbons	No change, only reappropriation	-
<u>Laboratory Course</u>	No major changes in the existing syllabus	-

(Signature of members of Central Board of Studies)



Meeting of Central Board of Studies(Chemistry): 18th June, 2018

Subject/ Faculty/ Name of Question Paper **Chemistry/Science**

Existing Syllabus	New Modified Syllabus	Justification of New Modified Syllabus
<p><u>B.Sc. PART-I</u> <u>PAPER III (Physical Chem)</u> Unit-I Mathematical Concepts for Chemists and Computers</p>	<p>Computers part has been removed Added- Significant figures and their applications</p>	<p>Students learn now a day since primary classes. Important topic</p>
<p>Unit-II Gaseous State</p>	<p>No change</p>	<p>Appropriate</p>
<p>Unit-III A. Liquid State B. Colloidal State</p>	<p>Part B. changed to 'Colloids and Surface Chemistry*' (* brought from Unit IV of existing syllabus)</p>	<p>Reappropriation</p>
<p>Unit-IV A. Solid State B. Surface Chemistry</p>	<p>'Surface Chemistry' moved to Unit-III</p>	<p>Reappropriate</p>
<p>Unit-V Chemical Kinetics</p>	<p>'Complex reactions...side reactions' deleted</p>	<p>Less important</p>
<p><u>Laboratory Course</u></p>	<p>No drastic change made</p>	<p>Existing course structure is well organized</p>

(Signature of members of Central Board of Studies)

NEW CURRICULUM OF B.Sc. PART I

CHEMISTRY

The new curriculum will comprise of Three theory papers of 33, 33 and 34 marks each and practical work of 50 marks. The curriculum is to be completed in 180 working days as per the UGC norms & conforming to the directives of the Govt. of Chhattisgarh. The theory papers are of 60 hrs each duration and the practical work of 180 hrs duration.

PAPER I

INORGANIC CHEMISTRY

M.M.33

UNIT-I

A. ATOMIC STRUCTURE

Bohr's theory, its limitation and atomic spectrum of hydrogen atom. General idea of de-Broglie matter-waves, Heisenberg uncertainty principle, Schrödinger wave equation, significance of Ψ and Ψ^2 , radial & angular wave functions and probability distribution curves, quantum numbers, Atomic orbital and shapes of s, p, d orbitals, Aufbau and Pauli exclusion principles, Hund's Multiplicity rule, electronic configuration of the elements.

B. PERIODIC PROPERTIES

Detailed discussion of the following periodic properties of the elements, with reference to s and p-block. Trends in periodic table and applications in predicting and explaining the chemical behavior.

- a) Atomic and ionic radii,
- b) Ionization enthalpy,
- c) Electron gain enthalpy,
- d) Electronegativity, Pauling's, Mulliken's, Allred Rochow's scales.
- e) Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.

UNIT-II

CHEMICAL BONDING I

Ionic bond: Ionic Solids - Ionic structures, radius ratio & co-ordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy Born- Haber cycle, Solvation

energy and solubility of ionic solids, polarising power & polarisability of ions, Fajans rule, Ionic character in covalent compounds: Bond moment and dipole moment, Percentage ionic character from dipole moment and electronegativity difference, Metallic bond-free electron, Valence bond & band theories.

UNIT-III

CHEMICAL BONDING II

Covalent bond: Lewis structure, Valence bond theory and its limitations, Concept of hybridization, Energetics of hybridization, equivalent and non-equivalent hybrid orbitals. Valence shell electron pair repulsion theory (VSEPR), shapes of the following simple molecules and ions containing lone pairs and bond pairs of electrons: H_2O , NH_3 , PCl_3 , PCl_5 , SF_6 , H_3O^+ , SF_4 , ClF_3 , and ICl_2^- Molecular orbital theory. Bond order and bond strength, Molecular orbital diagrams of diatomic and simple polyatomic molecules N_2 , O_2 , F_2 , CO , NO .

UNIT-IV

A. s-BLOCK ELEMENTS

General concepts on group relationships and gradation properties, Comparative study, salient features of hydrides, solvation & complexation tendencies including their function in biosystems and introduction to alkyl & aryls, Derivatives of alkali and alkaline earth metals

B. p-BLOCK ELEMENTS

General concepts on group relationships and gradation properties. Halides, hydrides, oxides and oxyacids of Boron, Aluminum, Nitrogen and Phosphorus. Boranes, borazines, fullerenes, graphene and silicates, interhalogens and pseudohalogens.

UNIT-V

A CHEMISTRY OF NOBLE GASES

Chemical properties of the noble gases, chemistry of xenon, structure, bonding in xenon compounds

B. THEORETICAL PRINCIPLES IN QUALITATIVE ANALYSIS (H_2S SCHEME)

Basic principles involved in the analysis of cations and anions and solubility products, common ion effect. Principles involved in separation of cations into groups and choice of group reagents. Interfering anions (fluoride, borate, oxalate and phosphate) and need to remove them after Group II.

REFERENCE BOOKS:

1. Lee, J. D. Concise Inorganic Chemistry ELBS, 1991.
2. Douglas, B.E. and McDaniel, D.H. Concepts & Models of Inorganic Chemistry Oxford, 1970
3. Atkins, P.W. & Paula, J. Physical Chemistry, 10th Ed., Oxford University Press, 2014.
4. Day, M.C. and Selbin, J. Theoretical Inorganic Chemistry, ACS Publications, 1962.
5. Rodger, G.E. Inorganic and Solid State Chemistry, Cengage Learning India Edition, 2002.
6. Puri, B. R., Sharma, L. R. and Kalia, K. C., Principles of Inorganic Chemistry, Milestone Publishers/ Vishal Publishing Co.; 33rd Edition 2016
7. Madan, R. D. Modern Inorganic Chemistry, S Chand Publishing, 1987.

PAPER: II

ORGANIC CHEMISTRY

UNIT-I BASICS OF ORGANIC CHEMISTRY

Hybridization, Shapes of molecules, Influence of hybridization on bond properties. Electronic Displacements: Inductive, electromeric, resonance and mesomeric effects, hyperconjugation and their applications; Dipole moment. Electrophiles and Nucleophiles; Nucleophilicity and basicity; Homolytic and Heterolytic cleavage, Generation, shape and relative stability of Carbocations, Carbanions, Free radicals, Carbenes and Nitrenes. Introduction to types of organic reactions: Addition, Elimination and Substitution reactions.

UNIT-II INTRODUCTION TO STEREOCHEMISTRY

Optical Isomerism: Optical Activity, Specific Rotation, Chirality/Asymmetry, Enantiomers, Molecules with two or more chiral-centres, Diastereoisomers, meso compounds, Relative and absolute configuration: Fischer, Newmann and Sawhorse Projection formulae and their interconversions; Erythrose and threose, D/L, d/l system of nomenclature, Cahn-Ingold-Prelog system of nomenclature (C.I.P rules), R/S nomenclature. Geometrical isomerism: cis-trans, syn-anti and E/Z notations.

UNIT-III CONFORMATIONAL ANALYSIS OF ALKANES

Conformational analysis of alkanes, ethane, butane, cyclohexane and sugars. Relative stability and Energy diagrams. Types of cycloalkanes and their relative stability, Baeyer strain theory: Theory of strainless rings, Chair, Boat and Twist boat conformation of cyclohexane with energy diagrams; Relative stability of mono-substituted cycloalkanes and disubstituted cyclohexane.

UNIT-IV CHEMISTRY OF ALIPHATIC HYDROCARBONS

A. Carbon-Carbon sigma (σ) bonds

Chemistry of alkanes: Formation of alkanes, Wurtz Reaction, Wurtz-Fittig Reaction, Free radical substitutions: Halogenation-relative reactivity and selectivity.

B. Carbon-Carbon Pi (π) bonds:

Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, E1cb reactions. Saytzeff and Hofmann eliminations.

Reactions of alkenes: Electrophilic additions and mechanisms (Markownikoff/ Anti - Markownikoff addition), mechanism of oxymercuration-demercuration, hydroboration-oxidation, ozonolysis, reduction (catalytic and chemical), syn and anti-hydroxylation (oxidation). 1,2-and 1,4-addition reactions in conjugated dienes and, Diels-Alder reaction; Allylic and benzylic bromination and mechanism, e.g. propene, 1-butene, toluene, ethyl benzene.

Reactions of alkynes: Acidity, Electrophilic and Nucleophilic additions. Hydration to form carbonyl compounds, Alkylation of terminal alkynes.

UNIT-V AROMATIC HYDROCARBONS

Aromaticity: Hückel's rule, aromatic character of arenes, cyclic carbocations/ carbanions and heterocyclic compounds with suitable examples. Electrophilic aromatic substitution: halogenation, nitration, sulphonation and Friedel-Craft's alkylation/acylation with their mechanism. Directive effects of the groups.

REFERENCE BOOKS:

1. Morrison, R. N. & Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd.(Pearson Education).
2. Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
3. Finar, I. L. Organic Chemistry (Volume 2: Stereochemistry and the Chemistry of Natural Products), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
4. Eliel, E. L. & Wilen, S. H. Stereochemistry of Organic Compounds, Wiley: London, 1994.

5. Kalsi, P. S. Stereochemistry Conformation and Mechanism, New Age International, 2005.
6. McMurry, J.E. Fundamentals of Organic Chemistry, 7th Ed. Cengage Learning India Edition, 2013.
7. Organic Chemistry, Paula Y. Bruice, 2nd Edition, Prentice-Hall, International Edition (1998).
8. A Guide Book of Reaction Mechanism by Peter Sykes.

PAPER - III

PHYSICAL CHEMISTRY

M.M.34

UNIT-I

MATHEMATICAL CONCEPTS FOR CHEMIST

Basic Mathematical Concepts: Logarithmic relations, curve sketching, linear graphs, Properties of straight line, slope and intercept, Functions, Differentiation of functions, maxima and minima; integrals; ordinary differential equations; vectors and matrices; determinants; Permutation and combination and probability theory, Significant figures and their applications.

UNIT-II

GASEOUS STATE CHEMISTRY

Kinetic molecular model of a gas: postulates and derivation of the kinetic gas equation; collision frequency; collision diameter; mean free path; Maxwell distribution and its use in evaluating molecular velocities (average, root mean square and most probable) and average kinetic energy, law of equipartition of energy, degrees of freedom and molecular basis of heat capacities. Joule Thompson effect, Liquification of Gases.

Behaviour of real gases: Deviations from ideal gas behaviour, compressibility factor (Z), and its variation with pressure and temperature for different gases. Causes of deviation from ideal behaviour. van der Waals equation of state, its derivation and application in explaining real gas behaviour, calculation of Boyle temperature. Isotherms of real gases and their comparison with van der Waals isotherms, continuity of states, critical state, relation between critical constants and van der Waals constants, law of corresponding states.

UNIT-III

A. LIQUID STATE CHEMISTRY

Intermolecular forces, magnitude of intermolecular force, structure of liquids, Properties of liquids, viscosity and surface tension.

B. COLLOIDS and SURFACE CHEMISTRY

Classification, Optical, Kinetic and Electrical Properties of colloids, Coagulation, Hardy Schulze law, flocculation value, Protection, Gold number, Emulsion, micelles and types, Gel, Syneresis and thixotrophy, Application of colloids.

Physical adsorption, chemisorption, adsorption isotherms (Langmuir and Freundlich). Nature of adsorbed state. Qualitative discussion of BET.

UNIT-IV

SOLID STATE CHEMISTRY

Nature of the solid state, law of constancy of interfacial angles, law of rational indices, Miller indices, elementary ideas of symmetry, symmetry elements and symmetry operations, qualitative idea of point and space groups, seven crystal systems and fourteen Bravais lattices; X-ray diffraction, Bragg's law, a simple account of rotating crystal method and powder pattern method. Crystal defects.

UNIT-V

A. CHEMICAL KINETICS

Rate of reaction, Factors influencing rate of reaction, rate law, rate constant, Order and molecularity of reactions, rate determining step, Zero, First and Second order reactions, Rate and Rate Law, methods of determining order of reaction, Chain reactions.

Temperature dependence of reaction rate, Arrhenius theory, Physical significance of Activation energy, collision theory, demerits of collision theory, non mathematical concept of transition state theory.

B. CATALYSIS

Homogeneous and Heterogeneous Catalysis, types of catalyst, characteristic of catalyst, Enzyme catalysed reactions, Micellar catalysed reactions, Industrial applications of Catalysis.

REFERENCE BOOKS:

1. Atkins, P. W. & Paula, J. de Atkin's Physical Chemistry 10th Ed., Oxford University Press (2014).

- Ball, D. W. Physical Chemistry Thomson Press, India (2007).
- Castellan, G. W. Physical Chemistry 4th Ed. Narosa (2004).
- Mortimer, R. G. Physical Chemistry 3rd Ed. Elsevier: NOIDA, UP (2009).
- Engel, T. & Reid, P. Physical Chemistry 3rd Ed. Pearson (2013).
- Puri, B.R., Sharma, L. R. and Pathania, M.S., Principles of Physical Chemistry, Vishal Publishing Co., 47th Ed. (2016).
- Bahl, A., Bahl, B.S. and Tuli, G.D. Essentials of Physical Chemistry, S Chand Publishers (2010).
- Rakshit P.C., Physical Chemistry, Sarat Book House Ed. (2014).
- Singh B., Mathematics for Chemist, Pragati Publications.

PAPER - IV LABORATORY COURSE

INORGANIC CHEMISTRY

A. Semi-micro qualitative analysis (using H₂S or other methods) of mixtures - not more than four ionic species (two anions and two cations, excluding interfering, insoluble salts) out of the following:

Cations : NH₄⁺, Pb²⁺, Bi³⁺, Cu²⁺, Cd²⁺, Fe³⁺, Al³⁺, Co²⁺, Ni²⁺, Mn²⁺, Zn²⁺, Ba²⁺, Sr²⁺, Ca²⁺, Na⁺
Anions : CO₃²⁻, S²⁻, SO₃²⁻, S₂O₃²⁻, NO₂⁻, CH₃COO⁻, Cl⁻, Br⁻, I⁻, NO₃⁻, SO₄²⁻

(Spot tests may be carried out wherever feasible)

B. Acid-Base Titrations

- Standardization of sodium hydroxide by oxalic acid solution.
- Determination of strength of HCl solution using sodium hydroxide as intermediate.
- Estimation of carbonate and hydroxide present together in mixture.
- Estimation of carbonate and bicarbonate present together in a mixture.
- Estimation of free alkali present in different soaps/detergents

C. Redox Titrations

- Standardization of KMnO₄ by oxalic acid solution.
- Estimation of Fe(II) using standardized KMnO₄ solution.
- Estimation of oxalic acid and sodium oxalate in a given mixture.
- Estimation of Fe(II) with K₂Cr₂O₇ using internal (diphenylamine, anthranilic acid) and external indicator.

D. Iodo / Iodimetric Titrations

- Estimation of Cu(II) and K₂Cr₂O₇ using sodium thiosulphate solution iodimetrically.
- Estimation of (a) arsenite and (b) antimony iodimetrically.

- Estimation of available chlorine in bleaching powder iodometrically.
- Estimation of Copper and Iron in mixture by standard solution of $K_2Cr_2O_7$ using sodium thiosulphate solution as titrants.

ORGANIC CHEMISTRY

1. Demonstration of laboratory Glasswares and Equipments.
2. Calibration of the thermometer. $80^\circ-82^\circ$ (Naphthalene), $113.5^\circ-114^\circ$ (Acetanilide), $132.5^\circ-133^\circ$ (Urea), 100° (Distilled Water.)
3. Purification of organic compounds by crystallization using different solvents.
 - Phthalic acid from hot water (using fluted filter paper and stemless funnel).
 - Acetanilide from boiling water.
 - Naphthalene from ethanol.
 - Benzoic acid from water.
4. Determination of the melting points of organic compounds.
 Naphthalene $80^\circ-82^\circ$, Benzoic acid $121.5^\circ-122^\circ$, Urea $132.5^\circ-133^\circ$ Succinic acid $184.5^\circ-185^\circ$, Cinnamic acid $132.5^\circ-133^\circ$, Salicylic acid $157.5^\circ-158^\circ$, Acetanilide $113.5^\circ-114^\circ$, m-Dinitrobenzene 90° , p-Dichlorobenzene 52° , Aspirin 135° .
5. Effect of impurities on the melting point – mixed melting point of two unknown organic compounds.
 - Urea – Cinnamic acid mixture of various compositions (1:4, 1:1, 4:1).
6. Determination of boiling point of liquid compounds. (boiling point lower than and more than $100^\circ C$ by distillation and capillary method).
 - Ethanol 78° , Cyclohexane 81.4° , Toluene 110.6° , Benzene 80° .
- i. Distillation (Demonstration)
 - Simple distillation of ethanol-water mixture using water condenser.
 - Distillation of nitrobenzene and aniline using air condenser.
- ii. Sublimation
 - Camphor, Naphthalene, Phthalic acid and Succinic acid.
- iii. Decolorisation and crystallization using charcoal.
 - Decolorisation of brown sugar with animal charcoal using gravity filtrations crystallization and decolorisation of impure naphthalene (100 g of naphthalene mixed with 0.3 g of Congo red using 1 g of decolorizing carbon) from ethanol.
7. Qualitative Analysis

Detection of elements (N, S and halogens) and functional groups (Phenolic, Carboxylic, Carbonyl, Esters, Carbohydrates, Amines, Amides, Nitro and Anilide) in simple organic compounds.

PHYSICAL CHEMISTRY

1. Surface tension measurements.

- Determine the surface tension by (i) drop number (ii) drop weight method.
- Surface tension composition curve for a binary liquid mixture.

2. Viscosity measurement using Ostwald's viscometer.

- Determination of viscosity of aqueous solutions of (i) sugar (ii) ethanol at room temperature.
- Study of the variation of viscosity of sucrose solution with the concentration of solute.
- Viscosity Composition curve for a binary liquid mixture.

3. Chemical Kinetics

- To determine the specific rate of hydrolysis of methyl/ethyl acetate catalysed by hydrogen ions at room temperature.
- To study the effect of acid strength on the hydrolysis of an ester.
- To compare the strengths of HCl & H₂SO₄ by studying the kinetics of hydrolysis of ethyl acetate.

4. Colloids

- To prepare colloidal solution of silver nanoparticles (reduction method) and other metal nanoparticles using capping agents.

Note: Experiments may be added/ deleted subject to availability of time and facilities

PRACTICAL EXAMINATION

05 Hrs.
M.M. 50

Three experiments are to be performed

1. Inorganic Mixture Analysis, four radicals two basic & two acid (excluding insoluble, Interfering & combination of acid radicals) OR Two Titrations (Acid-Bases, Redox and Iodo/Iodimetry)

12 marks

2. Detection of functional group in the given organic compound and determine its MPt/BPt.

8 marks

OR

Crystallization of any one compound as given in the prospectus along with the determination of mixed MPt.

OR

Decolorisation of brown sugar along with sublimation of camphor/ Naphthlene.

3. Any one physical experiment that can be completed in two hours including calculations.

14 marks

4. Viva

10 marks

5. Sessionals

06 marks

In case of Ex-Students two marks will be added to each of the experiments


REFERENCE TEXT:

1. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.
2. Ahluwalia, V. K., Dhingra, S. and Gulati, A. College practical Chemistry, University Press.
3. Mann, F.G. & Saunders, B.C. Practical Organic Chemistry, Pearson Education (2009)
4. Furniss, B.S.; Hannaford, A.J.; Smith, P.W.G.; Tatchell, A.R. Practical Organic Chemistry, 5th Ed., Pearson (2012)
5. Khosla, B. D.; Garg, V. C. & Gulati, A. Senior Practical Physical Chemistry, R. Chand & Co.: New Delhi (2011).
6. Garland, C. W.; Nibler, J. W. & Shoemaker, D. P. Experiments in Physical Chemistry 8th Ed.; McGraw-Hill: New York (2003).
7. Halpern, A. M. & McBane, G. C. Experimental Physical Chemistry 3rd Ed.; W.H. Freeman & Co.: New York (2003).

New Proposed Syllabus
For
UNDERGRADUATE PROGRAMME
(B.Sc. PROGRAM in PHYSICS)

B.Sc. Programme in Physics

Course structure



B.Sc. - Part-I

PAPER 1	Mechanics, Oscillations and Properties Of Matter
PAPER 2	Electricity and Magnetism And Electromagnetic Theory

B.Sc. - Part-II

PAPER 1	Thermodynamics, Kinetic Theory And Statistical Physics
PAPER 2	Waves, Acoustics and Optics

B.Sc.- Part-III

PAPER 1	Relativity, Quantum Mechanics, Atomic Molecular and Nuclear Physics
PAPER 2	Solid State Physics, Solid State Device And Electronics

B.Sc. Part-I

Subject: Physics

Paper-I: MECHANICS, OSCILLATIONS AND PROPERTIES OF MATTER

UNIT	Current Course	New Proposed Course	Justification
I	Laws of motion, motion in a uniform field, components of velocity and acceleration in different coordinate systems. (Cartesian, Cylindrical and Spherical) uniformly rotating frame, centripetal acceleration, Coriolis force and its applications. Motion under a central force, Kepler's laws. Gravitational law and field. Potential due to a spherical body. System of particles, center of mass, equation of motion, conservation of linear & angular momentum, conservation of energy.	<u>Cartesian, Cylindrical and Spherical coordinate system, Inertial and non-inertial frames of reference, uniformly rotating frame, Coriolis force and its applications. Motion under a central force, Kepler's laws. Effect of centrifugal and Coriolis forces due to earth's rotation, Center of mass (C.M), Lab and C.M frame of reference, motion of CM of system of particles subject to external forces, elastic, and inelastic collisions in one and two dimensions, Scattering angle in the laboratory frame of reference, Conservation of linear and angular momentum, Conservation of energy.</u>	The change in Unit is due to repetition of topics already covered in detail in 12th syllabus
II	Rigid body motion, rotational motion, moments of inertia and their products, principal moments & axes, Introductory idea of Euler's equations. potential well and periodic oscillations, case of harmonic small oscillations, differential equation and its solution, kinetic and potential energy, examples of simple harmonic oscillations, spring and mass system, simple and compound pendulum, torsional pendulum.	Rigid body motion, rotational motion, moments of inertia and their products, principal moments & axes, Introductory idea of Euler's equations. potential well and periodic oscillations, case of harmonic small oscillations, differential equation and its solution, kinetic and potential energy, examples of simple harmonic oscillations, spring and mass system, simple and compound pendulum, torsional pendulum.	No modification required
III	Bifilar oscillations, Helmholtz resonator, LC circuit, vibrations of a magnet, oscillations of two masses connected by a spring. Superposition of two simple harmonic motions of the same frequency, Lissajous figures, case of different frequencies. Damped harmonic oscillator', power dissipation, quality factor, examples, driven (forced), harmonic oscillator, transient and steady states, power absorption, resonance.	Bifilar oscillations, Helmholtz resonator, LC circuit, vibrations of a magnet, oscillations of two masses connected by a spring. Superposition of two simple harmonic motions of the same frequency, Lissajous figures, Damped harmonic oscillator, case of different frequencies. power dissipation, quality factor, examples, driven (forced) harmonic oscillator, transient and steady states, power absorption, resonance.	No modification required

IV	E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field- CRO sensitivity, Transverse B field, 180° deflection, mass spectrograph, curvatures of tracks for energy determination, principle of a cyclotron. Mutually perpendicular E and B fields-velocity selector, its resolution. Parallel E and B fields, positive ray parabolas, discovery of isotopes, elements of mass spectrography, principle of magnetic focusing lens.	E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field- CRO sensitivity, Transverse B field, 180° deflection, mass spectrograph, curvatures of tracks for energy determination, principle of a cyclotron. Mutually perpendicular E and B fields-velocity selector, its resolution. Parallel E and B fields, positive ray parabolas, discovery of isotopes, elements of mass spectrography, principle of magnetic focusing lens.	No modifications.
V	Elasticity, small deformations, Hooke's law elastic constants for an isotropic solid and relations between them beams supported at both the ends, cantilever, torsion of cylinder, bending moments and shearing forces. Kinematics of moving fluids, equations of continuity. Euler's equation, Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseuille's law. Capillary tube flow, Reynold's number, Stokes law, surface tension and surface energy, molecular interpretation of surface tension, pressure on a curved liquids surface, wetting.	Elasticity: <u>Strain and stress, elastic limit, Hooke's law, Modulus of rigidity, Poisson's ratio, Bulk modulus, relation connecting different elastic- constants, twisting couple of a cylinder (solid and hallow), Bending moment, Cantilever, Young modulus by bending of beam,</u> <u>Viscosity</u> : Poiseuille's equation of liquid flow through a narrow tube, equations of continuity. Euler's equation, Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseuille's law, <u>Coefficient of viscosity,</u> Stokes law, Surface tension and molecular interpretation of surface tension, Surface energy, Angle of contact, wetting.	This Unit is rearranged according to relevant topics.

TEXT AND REFERENCE BOOKS :

1. E M purcell, Ed Berkely physics course, vol. Mechnics (Mc. Gr. Hill) R P Feynman,
2. R B lighton and M Sands, the feynman lectures in physics, vol I (B) publications, Bombay, Delhi, Calcutta, Madras
3. D P Khandelwal, Oscillations and waves (Himalaya Publishing House Bombay)
4. R. K. Ghosh, The Mathematics of waves and vibrations (Macmillan 1975) .
5. J.C. Upadhyaya- Mechanics (Hindi and English Edition.)
6. D.S. Mathur- Mechanics and properties of matter.
7. Brij lal and subramanium- Oscillations and waves. Resnick and Halliday- Volume I
8. Physics Part -1: Resanick and Halliday.
9. Mechanics : D.S.Mathur.

B.Sc. Part-I

Subject: Physics

Paper-II: ELECTRICITY, MAGNETISM AND ELECTROMAGNETIC THEORY

UNIT	Current Course	New Proposed Course	Justification
I	<p>Functions of two and three variables, partial derivatives, geometrical interpretation of partial derivatives of functions of two variables. Total differential of a function of two and three variables. Repeated integrals of a function of more than one variable, definition of a double and triple integral. Scalars and vectors, dot and cross products, triple vector product, gradient of a scalar field and its geometrical interpretation, divergence and curl of a vector field, line, surface and volume integrals, flux of a vector field. Gauss's divergence theorem, Green's theorem and Stokes theorem.</p>	<p>Repeated integrals of a function of more than one variable, definition of a double and triple integral. Gradient of a scalar field and its geometrical interpretation, divergence and curl of a vector field, and their geometrical interpretation, line, surface and volume integrals, flux of a vector field. Gauss's divergence theorem, Green's theorem and Stokes theorem and their physical significance. Kirchoff's law, Ideal Constant-voltage and Constant-current Sources, Thevenin theorem, Norton theorem, Superposition theorem, Reciprocity theorem, and Maximum Power Transfer theorem.</p>	<p>This Unit is upgraded. Network theorems are introduced.</p>
II	<p>Coulomb's law in vacuum expressed in Vector forms calculations of E for simple distributions of charges at rest, dipole and quadrupole fields. Work done on a charge in a electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Relation between Electric potential and Electric field, torque on a dipole in a uniform electric field and its energy, flux of the electric field, Gauss's law and its application for finding E for symmetric charge distributions, Gaussian pillbox ? Fields at the surface of a conductor screening of E field by a conductor, capacitors, electrostatic field energy, force per unit area of the surface of a conductor in an electric field, conducting sphere in a uniform electric field, point charge in front of a</p>	<p>Coulomb's law in vacuum expressed in Vector forms, calculations of E for simple distributions of charges at rest, dipole and quadrupole fields. Work done on a charge in a electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Relation between Electric potential and Electric field, torque on a dipole in a uniform electric field and its energy, flux of the electric field. Gauss's law and its application: E due to (1) an Infinite Line of Charge, (2) a Charged Cylindrical Conductor, (3) an Infinite Sheet of Charge and Two Parallel Charged Sheets, capacitors, electrostatic field energy, force per unit area of the surface of a conductor in an electric field, conducting sphere in a uniform electric field.</p>	<p>Applications of Gauss's law are specified.</p>

	grounded infinite conductor.		
III	Dielectrics parallel plate capacitor with a dielectric, electric susceptibility, permittivity and dielectric constant, polarization and polarization vector, displacement vector, molecular interpretation of Clausius-Mossotti equation. Steady current, current density J , non-steady currents and continuity equation, Kirchoff's law and analysis of multi-loop circuits, rise and decay of current in LR and CR circuits, decay constants, transients in LCR circuits, AC circuits, complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an a AC circuit, power factor.	Dielectric constant, Polar and Non Polar dielectrics, Dielectrics and Gauss's Law, Dielectric Polarization, Electric Polarization vector P, Electric displacement vector D. Relation between three electric vectors, Dielectric susceptibility and permittivity, Polarizability and mechanism of Polarization, Lorentz local field, Clausius Mossotti equation, Debye equation, Ferroelectric and Paraelectric dielectrics, Steady current, current density J , non-steady currents and continuity equation, rise and decay of current in LR, CR and LCR circuits, decay constants, AC circuits, complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an a AC circuit, power factor.	This Unit is modified in accordance with the syllabus of other universities.
IV	Force on a moving charge, Lorentz force equation and definition of B , force on a straight conductor carrying current in a uniform magnetic field, torque on a current loop, magnetic dipole moment, angular momentum and gyromagnetic ratio. $\nabla \cdot B=0$, $\nabla \times B= \mu J$. Biot and Savart's law, Ampere's law field due to a magnetic dipole, magnetization current, magnetization vector, magnetic permeability (Linear cases), interpretation of a bar magnet as a surface distribution of sinusoidal current.	Magnetization Current and magnetization vector M, three magnetic vectors and their relationship, Magnetic permeability and susceptibility, Diamagnetic, paramagnetic and ferromagnetic substances. B.H. Curve, cycle of magnetization and hysteresis, Hysteresis loss. Biot-Savart's Law and its applications: B due to (1) a Straight Current Carrying Conductor and (2) Current Loop. Current Loop as a Magnetic Dipole and its Dipole Moment (Analogy with Electric Dipole). Ampere's Circuital law (Integral and Differential Forms).	This Unit is modified in accordance with the syllabus of other universities and syllabus of different competitive exams.
V	Electromagnetic induction, Faraday's law, electromotive force, $\epsilon = \int E \cdot dr$, integral and differential forms of Faraday's law Mutual and self inductance, Transformers, energy in a static magnetic field. Maxwell's displacement current, Maxwell's equations, electromagnetic field energy density. The wave equation	Electromagnetic induction, Faraday's law, electromotive force, integral and differential forms of Faraday's law Mutual and self inductance, Transformers, energy in a static magnetic field. Maxwell's displacement current, Maxwell's equations, electromagnetic field energy density. The wave equation satisfied by E and B , plane electromagnetic	No modification required

•	satisfied by E and B, plane electromagnetic waves in vacuum, Poynting's vector.	waves in vacuum, Poynting's vector.	
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TEXT AND REFERENCE BOOK :

1. Berkeley Physics Course, Electricity and Magnetism, Ed. E.M. Purcell (Mc Graw - Hill)
2. Halliday and Resnik, Physics, Vol. 2
3. D J Griffith, Introduction to Electrodynamics (Prentice-Hall of India)
4. Raitz and Milford, Electricity and Magnetism (Addison-Wesley)
5. A S Mahajan and A A Rangwala, Electricity and Magnetism (Tata Mc Graw-hill)
6. A M Portis, Electromagnetic fields.
7. Pugh & Pugh, Principles of Electricity and Magnetism (Addison-Wesley)
8. Panofsky and Phillips, Classical Electricity and Magnetism, (India Book House)
9. S S Atwood, Electricity and Magnetism (Dover).

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PHYSICS

OBJECTIVES OF THE COURSE

The undergraduate training in physics is aimed at providing the necessary inputs so as to set forth the task of bringing about new and innovative ideas/concepts so that the formulated model curricula in physics becomes in tune with the changing scenario and incorporate new and rapid advancements and multi disciplinary skills, societal relevance, global interface, self sustaining and supportive learning.

It is desired that undergraduate i.e. B.Sc. level besides grasping the basic concepts of physics should in addition have broader vision. Therefore, they should be exposed to societal interface of physics and role of physics in the development of technologies.


EXAMINATION SCHEME:

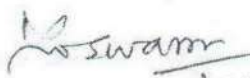
1. There shall be 2 theory papers of 3 hours duration each and one practical paper of 4 hours duration. Each paper shall carry 50 marks.
2. Numerical problems of at least 30% will compulsorily be asked in each theory paper.
3. In practical paper, each student has to perform two experiments one from each groups as listed in the list of experiments.
4. Practical examination will be of 4 hours duration- one experiment to be completed in 2 hours.


The distribution practical marks as follows:

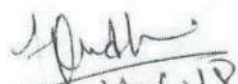
Experiment	: 15+15=30
Viva voce	: 10
Internal assessment	: 10

5. The external examiner should ensure that at least 16 experiments are in working order at the time of examination and submit a certificate to this effect.



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B.Sc. Part-I
Paper-I
MECHANICS, OSCILLATIONS AND PROPERTIES OF MATTER
(Paper code 0793)

- Unit-1** Cartesian, Cylindrical and Spherical coordinate system, Inertial and non-inertial frames of reference, uniformly rotating frame, Coriolis force and its applications. Motion under a central force, Kepler's laws. Effect of Centrifugal and Coriolis forces due to earth's rotation, Center of mass (C.M.), Lab and C.M. frame of reference, motion of C.M. of system of particles subject to external forces, elastic, and inelastic collisions in one and two dimensions, Scattering angle in the laboratory frame of reference, Conservation of linear and angular momentum, Conservation of energy.
- Unit-2** Rigid body motion, rotational motion, moments of inertia and their products, principal moments & axes, introductory idea of Euler's equations. Potential well and Periodic Oscillations, case of harmonic small oscillations, differential equation and its solution, kinetic and potential energy, examples of simple harmonic oscillations: spring and mass system, simple and compound pendulum, torsional pendulum.
- Unit-3** Bifilar oscillations, Helmholtz resonator, LC circuit, vibrations of a magnet, oscillations of two masses connected by a spring. Superposition of two simple harmonic motions of the same frequency, Lissajous figures, damped harmonic oscillator, case of different frequencies. Power dissipation, quality factor, examples, driven (forced) harmonic oscillator, transient and steady states, power absorption, resonance.
- Unit-4** E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field- CRO sensitivity, Transverse B field, 180° deflection, mass spectrograph, curvatures of tracks for energy determination, principle of a cyclotron. Mutually perpendicular E and B fields: velocity selector, its resolution. Parallel E and B fields, positive ray parabolas, discovery of isotopes, elements of mass spectrography, principle of magnetic focusing lens.
- Unit-5** Elasticity: Strain and stress, elastic limit, Hooke's law, Modulus of rigidity, Poisson's ratio, Bulk modulus, relation connecting different elastic- constants, twisting couple of a cylinder (solid and hollow), Bending moment, Cantilever, Young modulus by bending of beam.
- Viscosity: Poiseuille's equation of liquid flow through a narrow tube, equations of continuity. Euler's equation, Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseuille's law, Coefficient of viscosity, Stoke's law, Surface tension and molecular interpretation of surface tension, Surface energy, Angle of contact, wetting.

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TEXT AND REFERENCE BOOKS:

1. E M Purcell, Ed Berkely physics course, vol. Mechanics (Mc. Gr. Hill) R P Feynman.
2. R B Lighton and M Sands, the Feynman lectures in physics, vol I (B) publications, Bombay, Delhi, Calcutta, Madras.
3. D P Khandelwal, Oscillations and waves (Himalaya Publishing House Bombay).
4. R. K. Ghosh, The Mathematics of waves and vibrations (Macmillan 1975).
5. J.C. Upadhyaya- Mechanics (Hindi and English Edition.)
6. D.S. Mathur- Mechanics and properties of matter.
7. Brijlal and Subramanium- Oscillations and waves. Resnick and Halliday- Volume I
8. Physics Part -1: Resnick and Halliday.

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Paper-II

ELECTRICITY, MAGNETISM AND ELECTROMAGNETIC THEORY

Unit-1 Repeated integrals of a function of more than one variable, definition of a double and triple integral. Gradient of a scalar field and its geometrical interpretation, divergence and curl of a vector field, and their geometrical interpretation, line, surface and volume integrals, flux of a vector field. Gauss's divergence theorem, Green's theorem and Stoke's theorem and their physical significance. Kirchoff's law, Ideal Constant-voltage and Constant-current Sources. Thevenin theorem, Norton theorem, Superposition theorem, Reciprocity theorem and Maximum Power Transfer theorem.

Unit-2 Coulomb's law in vacuum expressed in Vector forms, calculations of E for simple distributions of charges at rest, dipole and quadrupole fields. Work done on a charge in a electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Relation between Electric potential and Electric field, torque on a dipole in a uniform electric field and its energy, flux of the electric field.

Gauss's law and its application: E due to (1) an Infinite Line of Charge, (2) a Charged Cylindrical Conductor, (3) an Infinite Sheet of Charge and Two Parallel Charged Sheets, capacitors, electrostatic field energy, force per unit area of the surface of a conductor in an electric field, conducting sphere in a uniform electric field.

Unit-3 Dielectric constant, Polar and Non Polar dielectrics, Dielectrics and Gauss's Law, Dielectric Polarization, Electric Polarization vector P, Electric displacement vector D. Relation between three electric vectors, Dielectric susceptibility and permittivity, Polarizability and mechanism of Polarization, Lorentz local field, Clausius Mossotti equation, Debye equation,

Ferroelectric and Paraelectric dielectrics, Steady current, current density J, non-steady currents and continuity equation, rise and decay of current in LR, CR and LCR circuits, decay constants, AC circuits, complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an a AC circuit, power factor.

Unit-4 Magnetization Current and magnetization vector M, three magnetic vectors and their relationship, Magnetic permeability and susceptibility, Diamagnetic, paramagnetic and ferromagnetic substances. B.H. Curve, cycle of magnetization and hysteresis, Hysteresis loss.

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Biot-Savart's Law and its applications: B due to (1) a Straight Current Carrying Conductor and (2) Current Loop. Current Loop as a Magnetic Dipole and its Dipole Moment (Analogy with Electric Dipole). Ampere's Circuital law (Integral and Differential Forms).

Unit-5 Electromagnetic induction, Faraday's law, electromotive force, integral and differential forms of Faraday's law Mutual and self inductance, Transformers, energy in a static magnetic field. Maxwell's displacement current, Maxwell's equations, electromagnetic field energy density. The wave equation satisfied by E and B, plane electromagnetic waves in vacuum, Poynting's vector.

TEXT AND REFERENCE BOOKS:

1. Berkeley Physics Course, Electricity and Magnetism, Ed. E.M. Purcell (Mc Graw - Hill).
2. Halliday and Resnik, Physics, Vol. 2.
3. D J Griffith, Introduction to Electrodynamics (Prentice-Hall of India).
4. Raitz and Milford, Electricity and Magnetism (Addison-Wesley).
5. A S Mahajan and A A Rangwala, Electricity and Magnetism (Tata Mc Graw-hill).
6. A M Portis, Electromagnetic fields.
7. Pugh & Pugh, Principles of Electricity and Magnetism (Addison-Wesley).
8. Panofsky and Phillips, Classical Electricity and Magnetism, (India Book House).
9. S S Atwood, Electricity and Magnetism (Dover).

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PRACTICALS

Minimum 16 (Eight from each group)

Experiments out of the following or similar experiments of equal standard

GROUP-A

1. Study of laws of parallel and perpendicular axes for moment of inertia.
2. Moment of inertia of Fly wheel.
3. Moment of inertia of irregular bodies by inertia table.
4. Study of conservation of momentum in two dimensional oscillations.
5. Study of a compound pendulum.
6. Study of damping of a bar pendulum under various mechanics.
7. Study of oscillations under a bifilar suspension.
8. Study of modulus of rigidity by Maxwell's needle.
9. Determination of Y , k , η by Searl's apparatus.
10. To study the oscillation of a rubber band and hence to draw a potential energy curve from it.
11. Study of oscillation of a mass under different combinations of springs.
12. Study of torsion of wire (static and dynamic method).
13. Poisson's ratio of rubber tube.
14. Study of bending of a cantilever or a beam.
15. Study of flow of liquids through capillaries.
16. Determination of surface tension of a liquid.
17. Study of viscosity of a fluid by different methods.

GROUP-B

1. Use of a vibration magnetometer to study a field.
2. Study of magnetic field B due to a current.
3. Measurement of low resistance by Carey-Foster bridge.
4. Measurement of inductance using impedance at different frequencies.
5. Study of decay of currents in LR and RC circuits.
6. Response curve for LCR circuit and response frequency and quality factor.
7. Study of waveforms using cathode-ray oscilloscope.
8. Characteristics of a choke and Measurement of inductance.
9. Study of Lorentz force.
10. Study of discrete and continuous LC transmission line.
11. Elementary FORTRAN programs, Flowcharts and their interpretation.
18. To find the product of two matrices.
19. Numerical solution of equation of motion.
20. To find the roots of quadratic equation.

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TEXT AND REFERENCE BOOKS:

1. B saraf et al Mechanical Systems(Vikas publishing House,New Delhi).
2. D.P. khandelwal, A Laboratory Manual of Physics for Undergraduate classes (Vani Publication House,New Delhi).
3. C G Lambe Elements of statistics (Longmans Green and Co London New York, Tprpnto).
4. C Dixon, Numerical analysis.
5. S Lipsdutz and A Poe, schaum's outline of theory and problems of programming with Fortran (MC Graw-Hill Book Company, Singapore 1986).

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विषय/संकाय/प्रश्न-पत्र का नाम— **B.Sc. Information Technology**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	FUNDAMENTAL OF I.T. COMPUTERS & PC SOFTWARE	FUNDAMENTAL OF IT, COMPUTER AND PC SOFTWARE	Updation Required
2.	1 st Year	PROGRAMMING CONCEPT USING C LANGUAGE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 st Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 nd Year	DIGITAL CIRCUITS & COMPUTER H/W	DIGITAL CIRCUITS & COMPUTER H/W	No Change
5.	2 nd Year	PAPER-II (PAPER CODE - 0875)	PAPER-II (PAPER CODE - 0875)	No Change
6.	2 nd Year	PRACTICAL	PRACTICAL	No Change
7.	3 rd Year	AMPLIFIERS AND OSCILLATORS	AMPLIFIERS AND OSCILLATORS	No Change
8.	3 rd Year	FUNDAMENTAL DATA STRUCTURE	FUNDAMENTAL DATA STRUCTURE	No Change
9.	3 rd Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B.Sc. Part - I
INFORMATION TECHNOLOGY
PAPER - I
FUNDAMENTAL OF IT, COMPUTER AND PC SOFTWARE
(PAPER CODE - 0824)

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I INFORMATION TECHNOLOGY

Concepts of IT and Information System, Application of IT (in Business, Education, Medicine, Science, Governance and Agriculture), Impact of IT on society and industry, Legal and Ethical aspect of IT, Security and Threats in IT, M-Commerce, Virtual reality, Latest trend in IT, Future of IT.

UNIT - II COMPUTER NETWORK

BASIC CONCEPTS OF COMPUTER NETWORK: Internet concepts, LAN, MAN, WAN, Topology, Protocol, Transmission mode, communication process, Required elements of Data Communication.

WIRELESS COMMUNICATION: Mobile Internet, GPS, 3G, 4G, Wi-Fi, Bluetooth, infrared, radio frequency, microwave.

SOCIAL NETWORKING: Evolution of social network sites (YouTube, Facebook, LinkedIn, Twitter), Advantages and Disadvantages of social networking sites.

UNIT - III MS-WORD

Introduction, Word Processing (MS-WORD), Advantage of word processing, Introduction and Installation, Editing a file, using paragraph styles. Newspaper style columns, Using macros, Advance word processing, Headers and footers, Finding text, Setting up printer. Mail merge and other applications, Mathematical calculator, Table handling.

UNIT - IV MS-EXCEL

Introduction to spreadsheet (MS-EXCEL), Definition and advantage of electronic worksheet, Working on spread sheets, Range and related operations, Setting saving and retrieving worksheets, Inserting, Deleting, Coping and Moving of data cells, Inserting and deleting rows and column, Protecting cells, Printing a worksheet, Erasing a worksheet in: Graphs creation, Types of graphs, Creating a chart sheet 3D, Columns charts, Moving and changing the size of chart, Printing the chart.

UNIT - V MS-POWER POINT AND MS-ACCESS

MS-POWER POINT: Presenting with Power point: Creating presentation, Working with slides, Different types of slides, Setting page layout, Selecting background and applying design, Adding graphics to slide, Adding sound and movie, Creating chart and graph, Playing a slide show, Slide transition, Advancing slides, Setting time, Rehearsing timing, Animating slide, Animating objects, Running the show from window.

MS-ACCESS: Creating tables in access, Defining data types, Manipulating records.

TEXT BOOKS:

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
3. Computer Networks, Forouzan, Tata McGraw-Hill, Second, Edition.
4. Microsoft Office 2007 fundamentals, L Story, D Walls.
5. MS Office, S. S. Shrivastava, Firewall Media

Sinwar
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Anuj
11/6/18
(Dr. A.K. Divedi)

Praveen
11/06/18
(L.K. Gaur)

Praveen
11/6/18
(Mr. T. Durgam Pat. Rao)

Yash
11-06-18
Havi Mandan
Prasad Rao

B. Sc. PART - I
INFORMATION TECHNOLOGY
PAPER II
PROGRAMMING IN 'C' LANGUAGE

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I

Fundamentals of C Programming: Overview of C: History of 'C', Structure of 'C' program. Keywords, Tokens, Data types, Constants, Literals and Variables, Operators and Expressions: Arithmetic operators, Relational operator, Logical operators, Expressions, Operator precedence and associativity, Type casting, Console I/O formatting, Unformatted I/O functions: getch(), getchar, getche(),getc(), putc(), putchar().

UNIT-II

Control Constructs: If-else, conditional operators, switch and break, nested conditional branching statements, loops: do while, while, for, Nested loops, break and continue, goto and label, exit function.

Functions: Definition, function components: Function arguments, return value, function call statement, function prototype, Types of function, Scope and lifetime of variable, Call by value and call by reference. Function using arrays, function with command line argument. User defined function: maths and character functions, Recursive function.

UNIT-III

Array: Array declaration, One and Two dimensional numeric and character arrays, Multidimensional arrays.

String: String declaration, initialization, string manipulation with/without using library function.

Structure, Union and Enum - Structure: Basics, declaring structure and structure variable, typedef statement, array of structure, array within structure, Nested structure, passing structure to function, function returning structure. **Union:** basics, declaring union and union variable, **Enum:** declaring enum and enum variable.

UNIT-IV

Pointer: Definition of pointer, Pointer declaration, Using & and * operators. Void pointer, Pointer to pointer, Pointer in math expression, Pointer arithmetic, Pointer comparison, Dynamic memory allocation functions – malloc, calloc, realloc and free, Pointer vs. Array, Array of pointer, Pointer to array, Pointers to function, Function returning pointer, Passing function as Argument to function, Pointer to structure, Dynamic array of structure through pointer to structure.

UNIT-V

File Handling and Miscellaneous Features: File handling: file pointer, File accessing functions: fopen, fclose, fputc, fgetc, sprintf, fscanf, fread, fwrite, eof, fflush, rewind, fseek, ferror. File handling through command line argument. Introduction to C preprocessor #include, #define, Conditional compilation directives: #if, #else, #elif, #endif, #ifndef etc.

TEXT BOOKS:

1. Programming in ANSI C, E Balagurusamy, Tata McGraw-Hill, Third Edition.
2. Let Us C, YashwantKanetkar, Infinity Science Press, Eighth Edition.
3. Mastering C, K R Venugopal, Tata McGraw-Hill.
4. The C Programming Language, Brian W. Kernighan, Dennis M. Ritchie, Prentice Hall, Second Edition.
5. Applications Programming in ANSI C, R. Johnsonbaugh, Martin Kalin, Macmillan, Second Edition.
6. The Spirit of C, Mullish Cooper, Jaico publishing House.
7. How to solve it by Computer, R.G.Dromey, Pearson Education.

Suman

Anuj 11/6/18

Paul 11/06/18

Hao 11/6/18

Ad. Rao

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Sharma
11-06-2018
Dr. Sanyal

Arora
11/6/2018
Dr. A.K. Privedi

Paul
11/06/18
(C.K. Gavel)

Sharma
11/6/18
(Dr. J. Daga Prasad Rao)

Sharma
11-06-18
Hari Shanker Prasad Pandey

Syllabus for B.A./ B.Sc. Course, 2018-19

Subject: Statistics

Each year of B.A./B.sc. I, II, III shall have two theories and one practical course. All the Theory as well as Practical Examinations will be of 3 hours duration. In each practical examination 10% marks shall be fixed for viva –voce and 20% marks for practical record.

Scheme of Examination

	Title of the paper	MAX. Marks
B.A./B.Sc. I	Paper-I (Code No. 0803) : Probability I	50
	Paper-II (Code No. 0804): Descriptive Statistics I	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150
B.A./B.Sc. II	Paper-I (Code No. 0853): Statistical Methods	50
	Paper-II (Code No. 0854): Sampling Theory and Design of Experiments	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150
B.A./B.Sc. III	Paper I (Code No. 0907): Applied Statistics	50
	Paper II (Code No. 0908): Statistical Quality Control and Computational Techniques	50
	Paper III: Practical- Based on Theory Papers I & II	50
	Total	150

B.A./B.Sc. –I Subject-Statistics

Paper – I (Paper Code-0803) PROBABILITY THEORY

Unit-I

Important concepts in probability: Random experiment: trial, sample point and sample space, event, Operations of events, concepts of mutually exclusive and exhaustive events. Definition of probability: classical and relative frequency approach. Richard Von Misses, Cramer and Kolmogrove approaches to probability, merits and demerits to these approaches, any general idea to be given. Discrete probability space, Properties of probability based on axiomatic approaches, Independence of events, Conditional probability, total and compound probability rules, Baye's theorem and its applications.

Unit-II

Random variables: Definition of discrete random variable (rv); probability mass function (pmf) and cumulative distribution function (cdf). Joint pmf of several discrete rvs. Marginal and conditional pmfs. Independence of rvs. Idea of continuous random variables, probability density function, illustration of random variables and its properties. Expectation of a random variable and its properties -moments,

measures of location and dispersion, skewness and kurtosis, Moment generating function, raw and central moments, Probability generating function (pgf) and, their properties and uses.

Unit-III

Standard univariate discrete distributions: degenerate, discrete uniform, hypergeometric, Poisson, geometric and negative binomial distributions. Marginal and conditional distributions, Distributions of functions of discrete rvs, reproductive property of standard distributions.

Unit-IV

Univariate continuous distributions and their properties: Uniform, Beta, Gamma, Exponential, Normal, Cauchy, Lognormal. Moment generating function (mgf) : its properties and applications.

Tchebycheff's inequality and applications, statements and applications of weak law of large numbers and central limit theorems.

Unit-V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R.,Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
- 2.Chung, K.L. (1979). Elementary Probability Theory with Stochastic Processes, Springer International Student Edition.
3. Edward P.J., Ford J.S. and Lin (1974): Probability for Statistical Decision-Marketing. Prentice Hall
4. Goon A.M., Gupta M.K. and Dasgupta B.(1999): Fundamentals of Statistics, Vol. I , World Press, Calcutta
5. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, Mc. Graw Hall.

ADDITIONAI REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
- 7.David Stirzaker (1994). Elementary Probability, Cambridge University Press.
- 8.Feller, W. (1968). An Introduction to Probability Theory and its Applications, Wiley.
9. Hoel P.G. (1971): Introduction to Mathematical Statistics
10. Mayer P.L. (1970): Introductory Probability and Statistical Applications, Addition Wesley
- 11.Mukhopadhyay, P. (1996). Mathematical Statistics, New Central Book Agency, Calcutta.
- 12.Parzen, E. (1960). Modern Probability Theory and its Applications, Wiley Eastern.
- 13Pitman, Jim (1993). Probability, Narosa Publishing House.

Paper – II(Paper Code-0804) DESCRIPTIVE STATISTICS

Unit - I

Origin and Development of statistical importance, uses and limitations of Statistics. Types of Data: Concepts of a statistics population and sample from a population; qualitative and quantitative data;

nominal and ordinal data; cross sectional and time series data; discrete and continuous data; frequency and non-frequency data.

Collection and Scrutiny of Data; Primary data – designing a questionnaire and a schedule; checking their consistency. Secondary data – their major sources including some government publications. Complete enumeration, controlled experiments, observational studies and sample surveys. Scrutiny of data for internal consistency and detection of errors of recording. Ideas of cross-validation.

Presentation of Data: Construction of tables with one or more factors of classification. Diagrammatic and graphical representation of non-frequency data. Frequency distributions, cumulative frequency distributions and their graphical and diagrammatic representation – column diagram, histogram, frequency polygon and ogives. Stem and leaf chart. Box plot.

Unit -II

Analysis of Quantitative Data: Univariate data: Concepts of central tendency or location, and their measures; arithmetic, geometric and harmonic mean, median and mode.

Unit -III

Dispersion and relative measures of dispersion, skewness and kurtosis, and their measures including those based on quartiles and moments. Sheppard's corrections for moments for grouped data (without deviation).

Unit -IV

Bivariate data: Scatter diagram. Product moment correlation coefficient and its properties. Coefficient of determination. Correlation ratio. Concepts of regression. Intra-class correlation coefficient with equal and unequal group sizes. Rank correlation – Spearman's and Kendall's measures. Correlation index. Principle of least squares. Fitting of linear and quadratic regression and related results. Fitting of curves reducible to polynomials by log and inverse transformation. Multivariate data: Multiple regression, multiple correlation and partial correlation in 3 variables. Their measures and related results.

Unit V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R., Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Croxton FE, Cowden DJ and Klein S: Applied General Statistics (1973): Prentice Hall of India.
3. Goon A.M., Gupta M.K., Dasgupta B. Fundamentals of Statistics, Vol. 1(1991) & Vol. 2(2001). World Press, Calcutta.
5. Gupta V.K. and Kapur S.C. : Fundamentals of Mathematical Statistics S. Chand and Sons.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark () : Basic Statistical Computing, Chapman and Hall.
7. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, McGraw Hill.
8. Snedecor GW and Cochran WG: Statistical Methods (1967) : Iowa State University Press.

9. Spiegel, MR (1967): Theory & Problems of Statistics (1967): Schaum's Publishing Series.

Paper III:

Practical : Practicals Based on Paper I & II

1. Presentation of data by Frequency tables, diagrams and graphs.
2. Calculation of Measures of Central Tendency, dispersion , skewness and kurtosis
3. Product Moment Correlation and Correlation Ratio
4. Fitting of Curves by the least square method
5. Regression of two variables
6. Spearman's Rank correlation Coefficient
7. Multiple regression of three variables
8. Multiple correlation and partial correlation
9. Evaluation of probabilities using addition and multiplication theorems, conditional probabilities and Bayes theorems
10. Exercises on mathematical expectations and finding measures of central tendency, dispersion, skewness and kurtosis of univariate probability distributions
11. Fitting of univariate and conditional distributions

B.A./B.Sc. –II

Subject: Statistics

Paper-I(Paper Code-0853)

Statistical Methods

Unit I

Sampling from a distribution : Definition of a random sample ,simulating random sample from standard distributions(uniform, Normal, Exponential) ,concept of derived distributions of a functions of random variables, concept of a statistics and its sampling distribution. Point estimate of a parameter. Properties of a good estimator, Concept of bias and standard error of an estimate .Standard errors of sample mean, sample proportion. Sampling distribution of sum of Binomial, Poisson and mean of Normal distributions. Independence of sample mean and variance in random sampling from a Normal distribution (without derivation).

Unit II

Statistical tests and interval estimation: Null and alternative hypothesis. Types of errors, level of significance, p values, one and two tailed tests, Procedure for testing of hypothesis. Statement of chi-squares, Student's t and F statistics. Testing for the single mean and variance of a univariate normal distribution, testing the equality of two means and testing for the equality of two variances of two univariate normal distributions. Related confidence intervals. Testing for the significance of sample correlation in sampling from bi-variate normal distribution and for equality of means and equality of variances in sampling from bivariate normal populations.

Unit III

Large sample tests: use of central limit theorem for testing and interval estimation of a single mean and a single proportion and difference of two means and two proportions, Fisher's Z transformation and its



Scheme & Syllabus

Subject: Electronics

**Approved at Central Board of Studies meeting held at
School of Studies in Electronics & Photonics
on 11th June ,2018**

[Constituted under Chhattisgarh Vishwavidyalaya Adhiniyam 1973 Clause 34 (A)]

**Jointly by
School of Studies in Electronics & Photonics
Pt. Ravishankar Shukla University
Raipur (C.G.)
&
Office of Commissioner
Department of Higher Education
Govt. of Chhattisgarh, Indrāvati Bhavan,
Naya Raipur (C.G.)**

Yearly Syllabus for Undergraduates
As recommended by Central Board of Studies of Electronics
For approval of Kuladhipati, Governor of Chhattisgarh
Session 2018-19
July 2018 onwards
Class: B.Sc. Electronics

Scheme of Examination

Paper Code	Course Opted	Title of Course	Theory	Practical	Grand Total	Minimum Passing Marks
First Year						
ELB-101	Core Course	Network Analysis And Analog Electronics	50		100	33
ELB-102	Core Course	Linear and Digital Integrated Circuits	50			
ELB-103P	Core Course Practical/Tutorial	Networks Analysis and Analog Electronics Lab	25	50	50	17
ELB-104P	Core Course Practical/Tutorial	Linear and Digital Integrated Circuits Lab	25			
Second Year						
ELB-201	Core Course	Communication Electronics	50		100	33
ELB-202	Core Course	Microprocessor and Microcontrollers	50			
ELB-203P	Course Practical/Tutorial	Communication Electronics Lab	25	50	50	17
ELB-204P	Course Practical/Tutorial	Microprocessor & Microcontroller Lab	25			
Third Year						
EL301	Skill Enhancement Course	Industrial Electronics	50		100	33
EL302	Skill Enhancement Course	Mobile Application Programming and Introduction to VHDL	50			
EL303P	Skill Enhancement Course Practical	Industrial Electronics Lab	25	50	50	17
EL304P	Skill Enhancement Course Practical	Mobile Application Programming and Introduction to VHDL Lab	25			

Syllabus

B . S c . P a r t I

ELECTRONICS

Paper-I

ELB-101: NETWORK ANALYSIS AND ANALOG ELECTRONICS

Theory:

Maximum Marks 50

Unit-1

Basic Circuit Concepts: Voltage and Current Sources, Review of Resistors, Inductors, Capacitors. Circuit Analysis: Kirchhoff's Current Law (KCL), Kirchhoff's Voltage Law (KVL),
AC Circuit Analysis: Sinusoidal Voltage and Current, Definition of Instantaneous, Peak, Peak to Peak, Root Mean Square and Average Values. AC applied to Series RC and RL circuits: Impedance of series RC & RL circuits. AC applied to Series and parallel RLC circuit, Series and Parallel Resonance, condition for Resonance, Resonant Frequency, Bandwidth, and significance of Quality Factor (Q).

Passive Filters: Low Pass, High Pass.

Network Theorems: Principal of Duality, Superposition Theorem, Thevenin's Theorem, Norton's Theorem, Reciprocity Theorem, Millman's Theorem, Maximum Power Transfer Theorem. AC circuit analysis using Network theorems.

Unit-2

Junction Diode and its applications: PN junction diode (Ideal and practical)-constructions, Formation of Depletion Layer, Diode Equation and I-V characteristics. Idea of static and dynamic resistance, dc load line analysis, Quiescent (Q) point. Zener diode, Reverse saturation current, Zener and avalanche breakdown. Rectifiers- Half wave rectifier, Full wave rectifiers (center tapped and bridge), circuit diagrams, working and waveforms, ripple factor and efficiency. Filter-Shunt capacitor filter, its role in power supply, output waveform, and working. Regulation- Line and load regulation, Zener diode as voltage regulator, and explanation for load and line regulation.

Unit-3

Bipolar Junction Transistor: CE, CB Characteristics and regions of operation, Transistor biasing, DC load line, operating point, thermal runaway, idea about stability and stability factor. Voltage divider bias, circuit diagrams and their working.

Field Effect Transistors: JFET, Construction, Working and Characteristics. MOSFET, Construction, Working and Characteristics.

Power Devices: UJT, Construction, Working and Characteristics. SCR, Diac, Triac, Construction, Working and Characteristics and Applications.

Unit-4

Amplifiers: Transistor biasing and Stabilization circuits- Fixed Bias and Voltage Divider Bias. Thermal runaway, stability and stability factor S. Transistor as a two port network, h-parameter equivalent circuit. Small signal analysis of single stage CE amplifier. Input and Output impedance, Current and Voltage gains. Class A, B and C Amplifiers.

Cascaded Amplifiers: Two stage RC Coupled Amplifier and its Frequency Response.

Unit-5

Feedback in Amplifiers: Concept of feedback, negative and positive feedback, advantages of negative feedback (Qualitative only).

Sinusoidal Oscillators: Barkhausen criterion for sustained oscillations. Phase shift, Wein bridge, Crystal and Colpitt's oscillator. Determination of Frequency and Condition of oscillation.

Reference Books:

- [1] Electric Circuits, S. A. Nasar, Schaum's outline series, Tata McGraw Hill (2004)
- [2] Electrical Circuits, M. Nahvi & J. Edminister, Schaum's Outline Series, Tata McGraw-Hill (2005)
- [3] Electrical Circuits, K.A. Smith and R.E. Alley, 2014, Cambridge University Press
- [4] Network, Lines and Fields, J.D. Ryder, Prentice Hall of India.
- [5] Electronic Devices and Circuits, David A. Bell, 5th Edition 2015, Oxford University Press.
- [6] Electronic Circuits: Discrete and Integrated, D.L. Schilling and C. Belove, Tata McGraw Hill
- [7] Electrical Circuit Analysis, Mahadevan and Chitra, PHI Learning
- [8] Microelectronic circuits, A.S. Sedra, K.C. Smith, A.N. Chandorkar, 2014, 6th Edn., Oxford University Press.
- [9] J. Millman and C. C. Halkias, Integrated Electronics, Tata McGraw Hill (2001)
- [10] J. J. Cathey, 2000 Solved Problems in Electronics, Schaum's outline Series, Tata McGraw Hill (1991)

Paper- II

ELB-102: LINEAR AND DIGITAL INTEGRATED CIRCUITS

Theory:

Maximum Marks 50

Unit-1

Operational Amplifiers (Black box approach): Characteristics of an Ideal and Practical Operational Amplifier (IC 741), Open and closed loop configuration, Frequency Response. CMRR. Slew Rate and concept of Virtual Ground.

Applications of Op-Amps: (1) Inverting and non-inverting amplifiers, (2) Summing and Difference Amplifier, (3) Differentiator, (4) Integrator, (5) Wein bridge oscillator, (6) Comparator and Zero-crossing detector, and (7) Active low pass and high pass, Butterworth filter (1st order only).

Unit-2

Number System and Codes: Decimal, Binary, Octal and Hexadecimal number systems, base conversions. Representation of signed and unsigned numbers, BCD code. Binary, octal and hexadecimal arithmetic; addition, subtraction by 2's complement method, multiplication.

Logic Gates and Boolean algebra: Truth Tables of OR, AND, NOT, NOR, NAND, XOR, XNOR, Universal Gates, Basic postulates and fundamental theorems of Boolean algebra.

Unit-3

Combinational Logic Analysis and Design: Standard representation of logic functions (SOP and POS), Minimization Techniques (Karnaugh map minimization up to 4 variables for SOP). Arithmetic Circuits: Binary Addition. Half and Full Adder. Half and Full Subtractor, 4-bit binary Adder/Subtractor.

Data processing circuits: Multiplexers, De-multiplexers, Decoders, Encoders. Clock and Timer (IC 555): Introduction, Block diagram of IC 555, Astable and Monostable multivibrator circuits.

Unit-4

Sequential Circuits: SR, D, and JK Flip-Flops. Clocked (Level and Edge Triggered) Flip-Flops. Preset and Clear operations. Race-around conditions in JK Flip-Flop. Master-slave JK Flip-Flop.

Shift registers: Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in-Parallel-out Shift Registers (only up to 4 bits).

Counters (4 bits): Ring Counter. Asynchronous counters, Decade Counter Synchronous Counter.

Unit-5

D-A and A-D Conversion: 4 bit binary weighted and R-2R D-A converters, circuit and working, Accuracy and Resolution. A-D conversion characteristics, successive approximation ADC. (Mention of relevant ICs for all).

Reference Books:

- [1] OP-Amps and Linear Integrated Circuit, R. A. Gayakwad, 4th edition, 2000, Prentice Hall
 - [2] Operational Amplifiers and Linear ICs, David A. Bell, 3rd Edition, 2011, Oxford University Press.
 - [3] Digital Principles and Applications, A.P. Malvino, D.P. Leach and Saha, 7th Ed., 2011, Tata McGraw
 - [4] Fundamentals of Digital Circuits, Anand Kumar, 2nd Edn, 2009, PHI Learning Pvt. Ltd.
 - [5] Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill.
 - [6] Digital Systems: Principles & Applications, R.J. Tocci, N.S. Widmer, 2001, PHI Learning.
 - [7] Thomas L. Floyd, Digital Fundamentals, Pearson Education Asia (1994)
 - [8] R. L. Tokheim, Digital Principles, Schaum's Outline Series, Tata McGraw- Hill (1994)
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ELECTRONICS LABORATORY
ELB 103P: NETWORK ANALYSIS AND ANALOG ELECTRONICS LAB
(Hardware and Circuit Simulation Software) **Max.Marks:25**

The scheme of practical examination will be as follows-

Experiment	--	30
Viva	--	10
Sessional	--	10
Total	--	50

AT LEAST 06 EXPERIMENTS FROM THE FOLLOWING BESIDES #1

1. To familiarize with basic electronic components (R, C, L, diodes, transistors), digital Multimeter, Function Generator and Oscilloscope.
2. Measurement of Amplitude, Frequency & Phase difference using Oscilloscope.
3. Verification of (a) Thevenin's theorem and (b) Norton's theorem.
4. Verification of (a) Superposition Theorem and (b) Reciprocity Theorem.
5. Verification of the Maximum Power Transfer Theorem.
6. Study of the I-V Characteristics of (a) p-n junction Diode, and (b) Zener diode.
7. Study of (a) Half wave rectifier and (b) Full wave rectifier (FWR).
8. Study the effect of (a) C- filter and (b) Zener regulator on the output of FWR.
9. Study of the I-V Characteristics of UJT and design relaxation oscillator..
10. Study of the output and transfer I-V characteristics of common source JFET.
11. Study of Fixed Bias and Voltage divider bias configuration for CE transistor.
12. Design of a Single Stage CE amplifier of given gain.
13. Study of the RC Phase Shift Oscillator.
14. Study the Colpitt's oscillator.

Reference Books:

1. Electrical Circuits, M. Nahvi and J. Edminister, Schaum's Outline Series, Tata McGraw-Hill (2005)
2. Networks, Lines and Fields, J.D.Ryder, Prentice Hall of India.
3. J. Millman and C. C. Halkias, Integrated Electronics, Tata McGraw Hill (2001)
4. Allen Mottershead, Electronic Devices and Circuits, Goodyear Publishing Corporation.

ELECTRONICS LAB

ELB 104P: LINEAR AND DIGITAL INTEGRATED CIRCUITS LAB

Max.Marks:25

At least 04 experiments each from section A, B and C

Section-A: Op-Amp. Circuits (Hardware)

1. To design an inverting amplifier using Op-amp (741,351) for dc voltage of given gain
2. (a) To design inverting amplifier using Op-amp (741,351) & study its frequency response
(b) To design non-inverting amplifier using Op-amp (741,351) & study frequency response
3. (a) To add two dc voltages using Op-amp in inverting and non-inverting mode
(b) To study the zero-crossing detector and comparator.
4. To design a precision Differential amplifier of given I/O specification using Op-amp.
5. To investigate the use of an op-amp as an Integrator.
6. To investigate the use of an op-amp as a Differentiator.
7. To design a Wien bridge oscillator for given frequency using an op-amp.
8. To design a circuit to simulate the solution of simultaneous equation and 1st/2nd order differential equation.
9. Design a Butterworth Low Pass active Filter (1st order) & study Frequency Response
10. Design a Butterworth High Pass active Filter (1st order) & study Frequency Response
11. Design a digital to analog converter (DAC) of given specifications.

Section-B: Digital circuits (Hardware)

1. (a) To design a combinational logic system for a specified Truth Table.
(b) To convert Boolean expression into logic circuit & design it using logic gate ICs.
(c) To minimize a given logic circuit.
2. Half Adder and Full Adder.
3. Half Subtractor and Full Subtractor.
4. 4 bit binary adder and adder-subtractor using Full adder IC.
5. To design a seven segment decoder.
6. To design an Astable Multivibrator of given specification using IC 555 Timer.
7. To design a Monostable Multivibrator of given specification using IC 555 Timer.
8. To build Flip-Flop (RS, Clocked RS, D-type and JK) circuits using NAND gates.
9. To build JK Master-slave flip-flop using Flip-Flop ICs
10. To build a Counter using D-type/JK Flip-Flop ICs and study timing diagram.
11. To make a Shift Register (serial-in and serial-out) using D-type/JK Flip-Flop ICs.

Section-C: SPICE/MULTISIM simulations for electronic circuits and devices

1. To verify the Thevenin and Norton Theorems.
2. Design and analyze the series and parallel LCR circuits
3. Design the inverting and non-inverting amplifier using an Op-Amp of given gain
4. Design and Verification of op-amp as integrator and differentiator
5. Design the 1st order active low pass and high pass filters of given cutoff frequency
6. Design a Wein's Bridge oscillator of given frequency.
7. Design clocked SR and JK Flip-Flop's using NAND Gates
8. Design 4-bit asynchronous counter using Flip-Flop ICs
9. Design the CE amplifier of a given gain and its frequency response.

Reference Books

1. Digital Principles and Applications, A.P. Malvino, D.P. Leach and Saha, 7th Ed., 2011, Tata McGraw
 2. OP-Amps and Linear Integrated Circuit, R. A. Gayakwad, 4th edn., 2000, Prentice Hall
 3. R. L. Tokheim, Digital Principles, Schaum's Outline Series, Tata McGraw- Hill (1994)
 4. Digital Electronics, S.K. Mandal, 2010, 1st edition, McGraw Hill
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Syllabus of Biotechnology

(B. Sc. I, II & III Year)

Session

2018-2019

2019-2020

2020-2021

B.Sc.-I

BIOTECHNOLOGY

PAPER – I

BIOCHEMISTRY, BIOSTATISTICS AND COMPUTERS

UNIT-I

1. Introduction to Biochemistry: History, Scope and Development.
2. Carbohydrates: Classification, Structure and Function of Mono, Oligo and Polysaccharides.
3. Lipids: Structure, Classification and Function.

UNIT –II

1. Amino acids and Proteins: Classification, Structure and Properties of amino acids, Types of Proteins and their Classification and Function.
2. Enzymes: Nomenclature and Classification of enzyme, Mechanism of enzyme action, Enzyme Kinetics and Factors affecting the enzymes action. Immobilization of enzyme and their application.

UNIT –III

1. Hormones: Plant Hormone-Auxin and Gibberellins and Animal Hormone-Pancreas and Thyroid.
2. Carbohydrates, Proteins and Lipid Metabolism - Glycolysis, Glycogenesis, Glyconeogenesis, Glycogenolysis and Krebs cycle. Electron Transport Chain and β -oxidation of Fatty acids.

UNIT-IV

1. Scope of Biostatistics, Samples and Population concept, Collection of data-sampling techniques, Processing and Presentation of data.
2. Measures of Central Tendency: Mean, Median and Mode and Standard Deviation.
3. Probability Calculation: Definition of probability, Theorem on total and compound probability.

UNIT-V

1. Computers - General introduction, Organization of computer, Digital and Analogue Computers and Computer Algorithm.
2. Concept of Hardware and Software, Input and Output Devices.
3. Application of computer in co-ordination of solute concentration, pH and Temperature etc., of a Fermenter in operation and Internet application.

List of Books

1. Nelson and Cox (2005) Principles of Biochemistry, Fourth Edition
2. Todd and Howards Mason (2004) Text book of Biochemistry, Fourth Edition
3. Lubert Stryer and Berg ((2004) Biochemistry, Fifth Edition
4. Diana Rain, Marni Ayers Barby - (2006) Textbook on Q level Programming. 4th Edition.
5. Karl Schwartz: (2006) Guide of Micro Soft. Marina Raod, 4th Edition.
6. E Balaguruswamy by Programming in BASIC (1991).
7. RC Campbell by Statistics for Biologists. .
8. P Cassel et al by Inside Microsoft Office,
9. Statistical Methods, GW Snedecor and WG Cochran.
10. AC Wardlaw by Practical Statistics for Experimental Biologists,
11. JHZar by Bio-statistical analysis
12. RR Sokal FJ Rohlf by Introduction to Biostatistics
13. L Y Kun (2003) Microbial Biotechnology: Principles and applications
14. Khan and Khanum (1994) Fundamental of Biostastics

B.Sc.-I

BIOTECHNOLOGY

PAPER-II

CELL BIOLOGY, GENETICS AND MICROBIOLOGY

UNIT-I

1. Concept of life, Cell as a basic unit of living system and Cell theory.
2. Diversity of Cell shape and size.
3. Prokaryotic cell structure: Function and ultra structure of cell (Gram positive and Gram negative Bacteria), Plasma membrane, Flagella, Pili, Endospore and Capsule.
4. Eukaryotic cell: Plant cell wall and Plasma membrane.

UNIT-II

1. Cytoplasm: Structure and Functions of Endoplasmic reticulum, Ribosome, Golgi complex, Lysosomes, Nucleus, Mitochondria and Chloroplast.
2. Cytoskeleton: Microtubules, Microfilaments and Intermediate filaments.
3. Cell division: Mitosis and Meiosis.
4. Programmed Cell Death.

UNIT-III

1. Mendel's Laws of Inheritance.
2. Linkage and Crossing over.
3. Chromosome variation in number and structure: Deletion, Duplication, Translocation, Inversion and Aneuploidy, Euploidy (Monoploidy and Polyploidy and its importance).

UNIT-IV

1. History, Scope and Development of Microbiology.
2. Basic techniques of Microbial Culture
3. Microbial Growth & Nutrition of Bacteria: Isolation, media sterilization- physical and chemical agents, pure culture-pour plate method, streak plate method and spread plate method.
4. General features and Economic importance of Fungi, Algae and Protozoa etc.

UNIT-V

1. Bacterial Reproduction: Conjugation, Transduction and Transformation.
2. Mycoplasma – History, Classification, Structure reproduction & Diseases.
3. Viruses – Basic features, Structure, Classification, Multiplication, Bacteriophages (Morphology, life cycle, infection and medicinal importance)

List of Books

1. C.B. Power- Cell biology, First Edition (2005), Himalaya Publishing House.
2. Gereld Karp - Cell and molecular biology, 4th Edition (2005)
3. P.K. Gupta - Cell and molecular biology, Second Edition (2003), Restogi publications.
4. C.B., Oowar - Cell biology, Third Edition (2005) Himalaya Publishing Hosue.
5. S.S. Purohit - Microbiology : Fundamentals and Applications, 6th Edition (2004)
6. R.C. Dubey and D.K. Maheshwari: Practical Microbiology. S.Chand Publication.
7. R.C. Dubey and D.K. Maheshwari, Microbiology (2006). S.Chand Publication.
8. Tortora, Funke and Case - Microbiology, An introduction, sixth Edition (1995), Benjamin/Cummings Publishing Company.
9. Prescott, Harley and Klein - Microbiology, Third Edition, Wm. C. Brown Publishers (1996).
10. P. Chakraoborthy - Textbook of microbiology, Second Edition (2007).
11. Prescott, Harley and Klein - Microbiology. Third Edition. Wm. C. Brown.
12. Microbial Genetics, David Freifelder, John F Cronan, Stanley R Maloy, Jones and Bartlett Publishers.
13. Elements of Human Genetics. I.I. cavalla-Sfoeza, WA Benjamin Advanced Book Program.
14. S.K Jadhav and P.K. Mahish (2018) Prayogtmak Jaivprodyogiki awam Sukshmjjivigyan- Chhattisgarh Hindi Granth Academy, Raipur.

List of Practical's

MICROBIOLOGY AND BIOCHEMICAL TECHNIQUES

- (1) Laboratory rules, Tools, Equipment and Other requirements in Microbiological laboratory.
- (2) Micrometry – Use of ocular & stage Micrometrer.
- (3) Counting of bacteria by counting chamber, by plate count.
- (4)Preparation of media and cultivation techniques:
 - (a) Basic liquid media (broth)
 - (b) Basic Solid media, (agar slants and deep tubes)
 - (c) Demonstration of selective and differential media
 - (d) Isolation and enumeration of micro organisms
 - (e) Isolation from air and Soil
- (5)Smears and staining methods:
 - (a) Preparation of bacterial smear
 - (b) Gram Negative & Positive staining
- (6)Methods of obtaining pure cultures
 - (a) Streak plate method
 - (b) Pure plate method
 - (c) Spread plate method
 - (d) Broth cultures
- (7)Growth & Biochemical techniques
 - (a) Determination of bacterial growth curve
 - (b) Amylase production test
 - (c) Cellulose production test
 - (d) Estimation of Sugar in given solution
 - (e) Extraction and separation of lipids
 - (f) Estimation of proteins
 - (h) Mitosis and Meiosis
- (8)Biostatistics:
 - (a) By Manual and by computer.
 - (b) Problems on mean, mode and median.

SCHEME OF PRACTICAL EXAMINATION

Time – 4 hrs.

M. M.: 50

1. Experiment based on culture of micro-organisms	15 Marks
2. Bacterial growth/Staining techniques	10 Marks
3. Biochemical techniques	05 Marks
4. Bio statistics	05 Marks
5. Spotting	05 Marks
6. <i>Viva – Voce</i>	05 Marks
7. Record/Sessional	05 Marks

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.Sc. Part-I (Mathematics)**

Paper-I (Algebra and Trigonometry)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Unit-I Symmetric, Skew symmetric, Hermitian and skew hermitian, matrices. Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, Column rank and rank of a matrix. Equivalence of column and row ranks. Eigen values, Eigen vectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.	Unit-I Symmetric, Skew symmetric, Hermitian and skew hermitian, matrices. Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, Column rank and rank of a matrix. Equivalence of column and row ranks. Eigen values, Eigen vectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.	पाठ्यक्रम का वह भाग जो कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।

प्रश्नपत्र का शेष भाग यथावत है।

Prof.H.K.Pathak

Prof.B.S.Thakur

Prof.M.A.Siddiqui

Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.Sc. Part-I (Mathematics)**

Paper-II (Calculus)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
<p>Unit-III Integration of irrational algebraic functions and transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.</p>	<p>Unit-III Integration of irrational algebraic functions and transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.</p>	<p>पाठ्यक्रम का वह भाग जो कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।</p>
<p>Unit-IV Degree and order of a differential equation. Equations of first order and first degree. Equations in which the variables are separable. Homogeneous equations. Linear equations and equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.</p>	<p>Unit-IV Degree and order of a differential equation. Equations of first order and first degree. Equations in which the variables are separable. Homogeneous equations. Linear equations and equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.</p>	

प्रश्नपत्र का शेष भाग यथावत है।

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Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

प्रपत्र

विषय/संकाय/प्रश्नपत्र का नाम: **B.Sc. Part-I (Mathematics)**

Paper-III (VECTOR ANALYSIS AND GEOMETRY)

वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
Unit-IV Plane the Straight line and the plane. Sphere. Cone. Cylinder.	Unit-IV Plane the Straight line and the plane. Sphere. Cone. Cylinder.	कक्षा-11 एवं 12 वी के पाठ्यक्रम में सम्मिलित हो चुका है, उसे हटाया गया है। इससे शेष भाग का विस्तार से अध्यापन कराया जा सकेगा।
प्रश्नपत्र का शेष भाग यथावत है।		

Prof.H.K.Pathak

Prof.B.S.Thakur

Prof.M.A.Siddiqui

Dr.S.K.Bhatt

Dr.R.K.Mishra

Dr.A.K.Mishra

S.K.Gupta

Sangeeta Pandey

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.Sc. Part-I

MATHEMATICS

PAPER - I

ALGEBRA AND TRIGONOMETRY

- UNIT-I** Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.
- UNIT-II** Application of matrices to a system of linear (both homogeneous and nonhomogeneous) equations. Theorems on consistency of a system of linear equations. Relation between the roots and coefficients of general polynomial equations in one variable. Transformation of equations. Descartes's rule of signs. Solutions of cubic equations (Cardon's method), Biquadratic equation.
- UNIT-III** Mappings, Equivalence relations and partitions. Congruence modulo n . Definition of a group with examples and simple properties. Subgroups, generation of groups, cyclic groups, coset decomposition, Lagrange's theorem and its consequences. Fermat's and Euler's theorems. Normal subgroups. Quotient group, Permutation groups. Even and odd permutations. The alternating groups A_n . Cayley's theorem.
- UNIT-IV** Homomorphism and Isomorphism of groups. The fundamental theorems of homomorphism. Introduction, properties and examples of rings, Subrings, Integral domain and fields Characteristic of a ring and Field.

TRIGONOMETRY :

- UNIT-V** De-Moivre's theorem and its applications. Direct and inverse circular and hyperbolic functions. Logarithm of a complex quantity. Expansion of trigonometrical functions. Gregory's series. Summation of series.

TEXT BOOK :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2000.
3. Chandrika Prasad, Text-Book on Algebra and Theory of equations, Pothishala Private Ltd., Allahabad.
4. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.

REFERENCES :

1. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, First Course in linear Algebra, Wiley Eastern, New Delhi, 1983.
2. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, Basic Abstract Algebra (2 edition), Cambridge University Press, Indian Edition, 1997.
3. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic linear Algebra with MATLAB, Key College Publishing (Springer-Verlag), 2001.
4. H.S. Hall and S.R. Knight, Higher Algebra, H.M. Publications, 1994.
5. R.S. Verma and K.S. Shukla, Text Book on Trigonometry, Pothishala Pvt. Ltd., Allahabad.

B.Sc. Part-I
MATHEMATICS
PAPER - II
CALCULUS

DIFFERENTIAL CALCULUS :

UNIT-I $\epsilon - \delta$ definition of the limit of a function. Basic properties of limits. Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions.

UNIT-II Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in cartesian and polar coordinates.

INTEGRAL CALCULUS:

UNIT-III Integration of transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.

ORDINARY DIFFERENTIAL EQUATIONS :

UNIT-IV Degree and order of a differential equation. Equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x , y , p . Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.

UNIT-V Linear differential equations of second order. Transformation of the equation by changing the dependent variable/the independent variable. Method of variation of parameters. Ordinary simultaneous differential equations.

TEXT BOOK :

1. Gorakh Prasad, Differential Calculus, Pothishala Private Ltd. Allahabad.
2. Gorakh Prasad, Integral Calculus, Pothishala Private Ltd. Allahabad.
3. D.A. Murray Introductory Course in Differential Equations, Orient Longman (India), 1976.

REFERENCES :

1. Gabriel Klambauer, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum's outline series, Schaum Publishing Co. New York.
3. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
4. P.K. Jain and S.K. Kaushik, An Introduction to Real Analysis, S. Chand & Co. New Delhi, 2000.
5. G.F. Simmons, Differential Equations, Tata Mc Graw Hill, 1972.
6. E.A. Coddington, An Introduction to Ordinary Differential Equations, Prentics Hall of India, 1961.
7. H.T.H. Piaggio, Elementary Treatise on Differential Equations and their Applications, C.B.S. Publishe & Distributors, Dehli, 1985.
8. W.E. Boyce and P.O. Diproima, Elementary Differential Equations and Boundary Value Problems, John Wiley, 1986.
12. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.

B.Sc. Part-I
MATHEMATICS
PAPER - III
VECTOR ANALYSIS AND GEOMETRY

VECTOR ANALYSIS :

- UNIT-I** Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl.
- UNIT-II** Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.
- UNIT-III** General equation of second degree. Tracing of conics. System of conics. Confocal conics. Polar equation of a conic.
- UNIT-IV** Sphere. Cone. Cylinder.
- UNIT-V** Central Conicoids. Paraboloids. Plane sections of conicoids. Generating lines. Confocal Conicoids. Reduction of second degree equations.

TEXT BOOKS :

1. N. Saran and S.N. Nigam, Introduction to vector Analysis, Pothishala Pvt. Ltd. Allahabad.
2. Gorakh Prasad and H.C. Gupta, Text Book on Coordinate Geometry, Pothishala Pvt. Ltd., Allahabad.
3. R.J.T. Bell, Elementary Treatise on Coordinate Geometry of three dimensions, Machmillan India Ltd. 1994.

REFERENCES :

1. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Company, New York.
2. Murray R. Spiegel, Vector Analysis, Schaum Publishing Company, New York.
3. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, 1999.
4. Shanti Narayan, A Text Book of Vector Calculus, S. Chand & Co., New Delhi.
5. S.L. Loney, The Elements of Coordinate Geometry, Macmillan and Company, London.
6. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of two Dimensions, Wiley Eastern Ltd., 1994.
7. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of three Dimensions, Wiley Eastern Ltd., 1999.
8. N. Saran and R.S. Gupta, Analytical Geometry of three Dimensions, Pothishala Pvt. Ltd. Allahabad.

बी.ए./बी. एस-सी. प्रथम वर्ष
सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	प्रथम
प्रश्न पत्र का नाम	:-	मानवविज्ञान के आधार

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- इकाई 1 – मानवविज्ञान का अर्थ एवं क्षेत्र। मानव विज्ञान का इतिहास। मानव विज्ञान की शाखाएँ –
1. सामाजिक-सांस्कृतिक मानव विज्ञान
 2. शारीरिक जैविक मानव विज्ञान
 3. भाषाई मानव विज्ञान
- इकाई 2 – मानवविज्ञान का अन्य विषयों के साथ संबंध : जैवविज्ञान, चिकित्सा विज्ञान, सामाजिक विज्ञान, इतिहास, अर्थशास्त्र, समाजशास्त्र, मनोविज्ञान, राजनैतिक विज्ञान।
- इकाई 3 – जैवकीय मानवविज्ञान के आधार
1. मानव उद्विकास, होमिनिड फासिल के संबंध में
 2. मानव विभिन्नता : प्रकार एवं कारक
 3. मानव अनुवांशिकी : अवधारणा, क्षेत्र एवं शाखाएँ
 4. मानव संवृद्धि एवं विकास : परिभाषा, क्षेत्र, पद्धति, एवं मानव संवृद्धि एवं विकास को प्रभावित करने वाले कारक
- इकाई 4 – सामाजिक-सांस्कृतिक मानवविज्ञान के आधार।
1. संस्कृति, समाज, समुदाय, समूह एवं संस्था।
 2. मानव संस्थाएँ :
परिवार : परिभाषा, प्रकार एवं परिवार के प्रकार्य।
विवाह : परिभाषा, विवाह के स्वरूप एवं उसके प्रकार्य।
नातेदारी : परिभाषा, प्रकार एवं प्रकार्य।
धर्म : धर्म के उत्पत्ति संबंधी सिद्धांत।
 3. तथ्य संग्रहण के आधारभूत तकनीक : अवलोकन, अनुसूची, प्रश्नावली एवं वंशावली।
- इकाई 5 – पुरातात्विक मानवविज्ञान के आधार
1. उपकरण प्रारूप एवं तकनीक : पुरापाषाणिक, मध्यपाषाणिक एवं नवपाषाणिक

2. सांस्कृतिक उद्विकास : संस्कृतियों का वृद्ध रूपरेखा (पाषाण-युग से धातु-युग)
3. पुरातत्वशास्त्र में काल निर्धारक तकनीक

बी.ए./बी. एस-सी. प्रथम वर्ष
सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	द्वितीय
प्रश्न पत्र का नाम	:-	शारीरिक/जैविकीय मानवविज्ञान

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- इकाई 1 – शारीरिक मानवविज्ञान का अर्थ एवं क्षेत्र, इतिहास एवं इसका व्यावहारिक आयाम।
जैविक उद्विकास के सिद्धांत : लैमार्कवाद, नव-लेमार्कवाद, डार्विनवाद, नव-डार्विनवाद एवं उद्विकास के संश्लेषण सिद्धांत
- इकाई 2 – जंतु जगत में मानव का स्थान, जीवित (लिविंग) प्राइमेट का वर्गीकरण, मनुष्य एवं कार्य की तुलनात्मक शारीरिक रचना (कपाल,पेल्विस, दंत एवं लम्बे अस्थियों के विशेष संदर्भ में)
- इकाई 3 – मानव उद्विकास के जीवाश्म साक्ष्य : रामाथिथेकस, आस्ट्रेलोपिथेकस, पिथेकेन्थ्रोपस, सिनेएन्थ्रोपस, नियंडरथल, क्रोमेगनन, ग्रिमाल्डी मानव, चांसलेड मानव।
- इकाई 4 – प्रजाति की अवधारणा : प्रजाति निर्माण एवं प्रजातीय वर्गीकरण के मापदंड, यूनेस्को कथन, भारत में प्रजातीय तत्व, विश्व के प्रमुख प्रजाति।
- इकाई 5 – मानव अनुवांशिकी :
1. गुणसूत्र की संरचना, डी.एन.ए. एवं आर.एन.ए.
2. मेण्डेलियन सिद्धांत
3. मानव में वंशागतिकी के प्रकार

बी.ए./बी. एस-सी. प्रथम वर्ष

सत्र : 2018-19

विषय का नाम	:-	मानवविज्ञान
प्रश्न पत्र	:-	प्रायोगिक
प्रश्न पत्र का नाम	:-	अस्थिशस्त्र एवं कपालमिति

पूर्णांक :- 50

उत्तीर्णांक :- 17

पाठ्यक्रम

- भाग 1 – मानव कंकाल के अस्थियों का पहचान। मानव कपाल के विभिन्न संस्थितियों का चित्रण एवं नामकरण। पेक्टोरल एवं पेल्विक गर्डल, फीमर एवं ह्यूमरस अस्थि की पहचान एवं बाह्य चित्रण।
- भाग 2 – कपालमिति :
1. कपाल की अधिकत लंबाई (मैक्सिमम क्रोनियल लेंथ)
 2. कपाल की अधिकतम चौड़ाई (मैक्सिमम क्रोनियल ब्रेथ)
 3. माथे की अधिकतम चौड़ाई (मैक्सिमम फ्रंटल ब्रेथ)
 4. चेहरे की चौड़ाई (बाई-जायगोमेटिक ब्रेथ)
 5. नासिका/नाक की ऊँचाई (नेजल हाईट)
 6. नासिका/नाक की चौड़ाई (नेजल ब्रेथ)
 7. माथे की न्यूनतम चौड़ाई (मिनीमम फ्रंटल ब्रेथ)
 8. बाई-मेक्सिलरी ब्रेथ
 9. आर्बिट की अधिकतम चौड़ाई (बाई आर्बिटल ब्रेथ)
 10. महारंध्र की लंबाई (लेंथ ऑफ फोरामेन मेग्नम)
- भाग 3 – कपालमितीय देशनाएँ –
1. क्रोनियल देशना
 2. नेसल देशना

केन्द्रीय अध्ययन मंडल द्वारा अनुष्णसित पाठ्यक्रम

बी.एससी.

विशय : भूविज्ञान

सत्र : 2018 – 2019

बैठक दिनांक : 11जून 2018

उपस्थित सदस्यों के नाम एवं हस्ताक्षर :

1. डॉ. निनाद बोधनकर अध्यक्ष :
2. डॉ. एम.डब्लू.वाय.खान :
3. प्रो. एस.के. चन्द्राकर :
4. प्रो. प्रदीप सिंह गौर :
5. डॉ. एस.एस.भदौरिया :
6. डॉ. एस.डी.देणामुख :
7. डॉ. प्रणान्त श्रीवास्तव :
8. प्रो. महफूज आरिफ :

Scheme of Examination

कक्षा	प्रश्नपत्र	विशय समूह	सैद्धा.अंक	प्रायो.अंक	योग
BSc. I year	I	भूगतिकी एवं भू-आकृति विज्ञान (Geodynamics & Geomorphology)	50	50	150
	II	खनिज एवं क्रिस्टल विज्ञान (Mineralogy & Crystallography)	50		
BSc. II year	I	शैलिकी (Petrology)	50	50	150
	II	संरचनात्मक भूविज्ञान (Structural Geology)	50		
BSc. III year	I	जीवाश्म विज्ञान एवं संस्तर विज्ञान (Palaeontology & Stratigraphy)	50	50	150
	II	भूसंसाधन एवं व्यावहारिक भूविज्ञान (Earth Resources & Applied Geology)	50		

-: Note :-

प्रत्येक वर्ष के विद्यार्थियों हेतु पाठ्यक्रम में उल्लेखित भूवैज्ञानिक क्षेत्रीय अध्ययन अनिवार्य होगा।

कक्षा / Class- B.Sc-I
Paper –I
भूगतिकी एवं भूआकृति विज्ञान
(Geodynamics & Geomorphology)

- इकाई- 01 (i) भूविज्ञान एवं परिप्रेक्ष्य; सौरमण्डल में सूर्य की स्थिति ; परिमाण, आकार, संहति, घनत्व ।
(ii) पृथ्वी की उत्पत्ति
(iii) पृथ्वी की आंतरिक संरचना, भूपर्पटी, प्रवार एवं क्रोड
(iv) पृथ्वी की आयु: निर्धारण की विघटनाभिक विधियाँ
(v) वायुमण्डल, जलमण्डल एवं जैवमण्डल का निर्माण एवं संगठन
- इकाई- 02 (i) प्लेटविवर्तनिकी का प्रारंभिक- अध्ययन
(ii) महाद्वीपीय विस्थापन की अवधारणायें एवं सिद्धान्त
(iii) समस्थैतिकी की अवधारणायें एवं सिद्धान्त
(iv) समुद्रतल विस्तारण की साक्ष्य
(v) समुद्र, महाद्वीप एवं पर्वतों की उत्पत्ति
- इकाई- 03 (i) भूकम्प: भूकम्प की पट्टियाँ, भूकम्प की तीव्रता
(ii) ज्वालामुखी: प्रकार एवं विवरण
(iii) अंतःसमुद्रीपर्वतों, चापाकार द्वीपमालाओं एवं खाइयों का उद्भव, विवरण एवं महत्व
(iv) महाद्वीपीय तटीय क्षेत्रों की विवर्तनिकी : सक्रिय तट एवं सीमांतीय द्रोणियाँ
(v) नवविवर्तनिकी : सक्रियभ्रंश, अपवाह परिवर्तन
- इकाई- 04 (i) भूआकृति विज्ञान की मूलभूत धारणायें
(ii) भूआकृतिक कारक एवं शैल अपक्षय की प्रक्रियायें,
(iii) नदी के भूवैज्ञानिक कार्य एवं नदीय भूआकृतियाँ
(iv) वायु के भूवैज्ञानिक कार्य एवं वायुजनित भूआकृतियाँ
(v) हिमनदों के भूवैज्ञानिक कार्य एवं हिमनदजनित भूआकृतियाँ

- इकाई— 05
- (i) समुद्र के भूवैज्ञानिक कार्य एवं तटीय भूआकृतियों
 - (ii) भूमिगत जल के भूवैज्ञानिक कार्य एवं कास्टस्थलाकृति
 - (iii) ज्वालामुखीय भूआकृतियों
 - (iv) पृथ्वी का उष्माबजट एवं वैश्विक जलवायु परिवर्तन
 - (V) भारत का भूआकृति विभाजन

प्रायोगिक कार्य—

- (1) भूआकृतिक संरचनाओं को प्रदर्शित करने वाले प्रादर्शों का अध्ययन
- (2) स्थलाकृतिक मानचित्रों का अध्ययन एवं विभिन्न पैमानों पर सूचक—निर्धारण की जानकारीयों
- (3) भूआकृतिक—मानचित्रों में विभिन्न भूआकृतियों एवं प्रवाह प्रणालियों का अध्ययन
- (4) भारत के रेखित—मानचित्र में मुख्य पर्वतों, झीलों एवं नदियों को अंकित करना
- (5) भारत के रेखित मानचित्र में भूकम्प प्रेक्षणालयों को अंकित करना
- (6) भारतीय महाद्वीपों में आये भूकम्पों का अधिकेन्द्र एवं तीव्रता को मानचित्र में अंकित करना।
- (7) आकारमिक्तिक विश्लेषण

Class- B.Sc-I
Paper –I
(Geodynamics & Geomorphology)

- Unit:1**
- (i) Geology & its perspectives. Earth in the solar system; size, shape, mass, & density.
 - (ii) Origin of Earth.
 - (iii) Internal structure of Earth, Crust, Mantle and Core.
 - (iv) Age of Earth: with special emphasis on Radioactive dating.
 - (v) Formation & composition of Hydrosphere, & Biosphere & Atmosphere.
- Unit:2**
- (i) Elementary idea about Plate-Tectonics.
 - (ii) Concept & theories of continental-drift
 - (iii) Concept & theories of Isostasy.
 - (iv) Evidences of Sea-floor spreading.
 - (v) Origin of oceans, continents & mountains.
- Unit:3**
- (i) Earthquakes, Earthquake Belts, measurement of Earthquakes.
 - (ii) Volcanoes: Types & distribution.
 - (iii) Mid –oceanic- ridges, trenches & island arc; origin, distribution & importance.
 - (iv) Tectonic of continental margins; Active margins & marginal basins.
 - (v) Neo-tectonics; active faults, drainage changes.
- Unit:4**
- (i) Fundamental concepts of Geomorphology.
 - (ii) Geomorphic agents & processes of rock-weathering.
 - (iii) Geological work of rivers; fluvial land forms.
 - (iv) Geological work of wind; Aeolian land forms.
 - (v) Geological work of Glaciers; glacial land forms.
- Unit:5**
- (i) Geological work of oceans; coastal land forms.
 - (ii) Geological work of Ground water. Karst topography.

- (iii) Volcanic land forms.
- (iv) Earth's heat budget & global climatic changes.
- (v) Physiographic divisions of India.

PRACTICALS:

- (1) Study of models showing various Geomorphic features.
- (2) Numbering, Indexing of topographic maps on various scales.
- (3) Interpretation of various Geomorphic landforms & drainage pattern on topographic maps.
- (4) Plotting of major mountain Ranges, Lakes & rivers on outline map of India.
- (5) Plotting of seismic observatories on outline map of India.
- (6) Plotting of epicenters & magnitude of major earthquakes of Indian subcontinents.
- (7) Morphometric analysis.

Suggested Readings:-

भौतिक-भूविज्ञान	—	डॉ.मुकुल घोष—
भौतिक-भूविज्ञान	—	जे.पी. तिवारी एव बी.के. सिंह—
भूआकृति-विज्ञान	—	डॉ.सविन्द्र सिंह
भूविज्ञान एक परिचय	—	डॉ.विद्यासागर दुबे
Physical Geology	-	Miller
Principles of physical geology	-	A. Holmes
An introduction to physical geology-		A.K. Dutta
Principles of Geomorphology	-	W.D. Thornbury
Principles of Geomorphology	-	A.F. Ahmed

कक्षा / Class- B.Sc-I
Paper –II
खनिज एवं क्रिस्टल विज्ञान
(Mineralogy & Crystallography)

- इकाई— 01 (i) खनिज एवं क्रिस्टल की परिभाषा।
(ii) क्रिस्टल संरचना एवं एकांक कोष।
(iii) क्रिस्टल के तत्व, क्रिस्टल रूप।
(iv) क्रिस्टलीय अक्ष एवं अक्षीय कोण।
(v) क्रिस्टल नोटेशन, अन्तःखण्डीय अनुपात एवं सूचकांक
- इकाई— 02 (i) क्रिस्टल विज्ञान के नियम।
(ii) क्रिस्टलीय सममिति।
(iii) क्रिस्टलों का वर्गीकरण। क्रिस्टल समुदायों के सामान्यवर्ग की सममिति।
(iv) सामान्य वर्ग के रूप।
(v) क्रिस्टलों में यमलन।
- इकाई— 03 (i) प्रकाश की प्रकृति, प्रकाश का परावर्तन एवं अपवर्तन।
(ii) अपवर्तनांक, क्रांतिक कोण, पूर्ण आंतरिक परावर्तन एवं बेके प्रभाव।
(iii) द्वि-अपवर्तन, निकॉल प्रिज्म की रचना एवं कार्य प्रणाली।
(iv) ध्रुवण सूक्ष्मदर्शी : अवयव एवं कार्यप्रणाली।
(v) खनिजों के प्रकाशीय गुण।
- इकाई— 04 (i) सिलिकेट संरचनाएं
(ii) खनिजों में बंध।
(iii) समाकृतिकता, बहुरूपता एवं कूटरूपता।
(iv) ठोस-विलयन
(v) खनिजों के भौतिक गुण।

इकाई- 05 निम्नलिखित खनिज समूहों के संगठन, भौतिक एवं प्रकाशकीय गुणों का अध्ययन-

- (i) ऑलिवीन्, गार्नेट एवं अम्फ़क समूह।
- (ii) पायरॉक्सीन।
- (iii) एम्फीबोल।
- (iv) फ़ेल्सपार।
- (v) सिलिका।

प्रायोगिक कार्य-

- (1) क्रिस्टल मॉडल में सममिति तत्त्वों का अध्ययन।
- (2) क्रिस्टल समुदायों की मूल आकृतियों का अध्ययन।
- (3) यूलर प्रमेय का सत्यापन।
- (4) प्रमुख शैलकर खनिजों का स्थूलदर्शी अध्ययन।
- (5) ध्रुवण-सूक्ष्मदर्शी की सहायता से प्रमुख शैलकर खनिजों के प्रकाशीय गुणों का अध्ययन।
- (6) सात दिवसीय भूवैज्ञानिक क्षेत्रीय अध्ययन

Class- B.Sc-I
Paper –II
(Mineralogy & Crystallography)

- Unit:1**
- (i) Definition of Mineral and Crystal.
 - (ii) Crystal structures, Unit cells
 - (iii) Elements of crystal. Crystal forms.
 - (iv) Crystallographic axes and axial angles.
 - (v) Parameters and indices of crystal notation
- Unit:2**
- (i) Laws of Crystallography
 - (ii) Crystal symmetry
 - (iii) Classification and symmetry of normal classes of seven crystal systems
 - (iv) Forms of normal classes.
 - (v) Twinning in crystals
- Unit:3**
- (i) Nature of light : reflection and refraction of light.
 - (ii) Refractive index. Critical angles. Total internal reflection and Becke effect.
 - (iii) Double refraction. Nicol prism it's construction and working.
 - (iv) Polarizing Microscope- its parts & functions.
 - (v) Optical properties of minerals.
- Unit:4**
- (i) Silicate structures.
 - (ii) Bonding in Minerals.
 - (iii) Isomorphism. Polymorphism and Pseudomorphism.
 - (iv) Solid solution
 - (v) Physical properties of minerals
- Unit:5**
- Study of Composition, physical and optical properties of the following Mineral groups:
- (i) Olivine, Garnet and Mica groups.

- (ii) Pyroxenes
- (iii) Amphiboles
- (iv) Feldspars
- (v) Silica

PRACTICALS-

- (1) Study of symmetry elements in crystal models.
- (2) Study of Fundamental forms of normal classes of all seven crystal system.
- (3) Verification of Euler's theorem.
- (4) Study of Physical properties of rock forming minerals.
- (5) Study of the optical properties of important rock forming minerals using polarizing Microscopes.
- (6) Geological excursion for seven days.

Suggested Readings:

Rutley's elements of Mineralogy	:	Read, H.D.
Dana's text book of Mineralogy	:	Ford W.E.
खनिज तथा क्रिस्टल विज्ञान	—	डॉ.बी.सी. जैश
खनिज विज्ञान के सिद्धांत	—	डॉ. ए.सी. अग्रवाल
प्रायोगिक भू-विज्ञान (भाग-1)	—	डॉ. र. प्र. मांजरेकर
प्रकाशीय खनिज विज्ञान के मूल तत्व	—	विंचेल

B. Sc. Bioscience

Scheme of Examination

B.Sc. I Year

Paper	Name of Paper	Max Marks	Total Marks	Min Marks
Paper – I	Cell Biology and Genetics	50	100	33
Paper – II	Biodiversity and Systematics of Plants and Microbes	50		
Practical	Based on Paper - I & - II		50	17

B.Sc. II Year

Paper – I	Ecology, Environmental Biology, Evolution and Behaviour	50	100	33
Paper – II	Biodiversity and Systematics of Invertebrates and Vertebrates	50		
Practical	Based on Paper - I & - II		50	17

B.Sc. III Year

Paper – I	Plant and Animal Physiology, Development and Biochemistry	50	100	33
Paper – II	Biostatistics, Computer and Bioinformatics	50		
Practical	Based on Paper - I & - II		50	17

Syllabus

B.Sc. I Year

Paper – I	Cell Biology and Genetics
Unit – I	Cell wall and Cell membrane; Structural components, organization and function. Cytoskeletons. Structure and function of Nucleus, nuclear pore complex, Nucleolus and other subnuclear organelles.
Unit – II	Structure and function of Endoplasmic reticulum, Golgi bodies, Lysosomes, Peroxisomes, Ribosomes, Chloroplast and Mitochondria.
Unit – III	Structure and organization of chromosomes. Cell division in prokaryotes and eukaryotes. Structure, types and function of DNA and RNA. Genetic code. Programmed cell death and Apoptosis. Identification of the genetic material: Experiments of Griffith.
Unit – IV	Molecular mechanism of recombination: Homologous and site specific recombination. Recombination in bacteria: Conjugation, transformation, Transduction. Basic concept of genetics. Mendelian Genetics: Principle of segregation and independent assortment, monohybrid, dihybrid and trihybrid cross, epistasis.
Unit – V	Mutation: Point mutations, base substitutions, base addition and deletion, Mutant phenotypes and their detection, Spontaneous mutation, Induced mutations, molecular mechanisms of mutations. Concept of transgenic animals and plants.

Paper – II	Biodiversity and Systematics of Microbes and Plants
Unit – I	Bacteria: General characteristics, Structure, nutrition, reproduction. Classification of bacteria- outline of the prokaryotes as per Bergey's Manual 2001. Economic importance of bacteria Virus: General characteristics, structure and classification of viruses. Bacteriophage: λ phage, structure and life cycle. Plant virus: TMV structure and life cycle. Animal virus: HIV structure and life cycle.
Unit – II	Algae: General characters, classification and economic importance, important features and life history of Chlorophyceae; Volvox, Oedogonium. Xanthophyceae; Vaucheria. Pheophyceae; Sargassum. Rhodophyceae; Polysiphonia.
Unit – III	Fungi: General characters, classification and economic importance, important features and life history of Mastogomycotina; Pythium, Zygomycotina; Mucor. Ascomycotina; Peziza. Basidiomycotina; Agaricus. Deuteromycotina; Colletotrichum. General characters of Lichen.
Unit – IV	Bryophyta: Structure, reproduction and classification of Hepaticopsida- Marchantia; Anthocerotopsida- Anthoceros; Bryopsida- Funaria. Pteridophyta: Important characteristics of Psilopsida, Lycopsida, Sphenopsida, Pteropsida, Lycopodium, Selaginella, Pteris and Marsilea.
Unit – V	General feature of Gymnosperm and their classification: Evolution and diversity of gymnosperm. Geological time scale, fossilization and fossil Gymnosperm. Morphology of vegetative and reproductive parts; anatomy of

	<p>roots, stem and leaf, reproduction and life cycle of Pinus, Cycas and Ephedra. Classification of angiosperm: Salient features of the systems proposed by Benthem and Hooker, and Engler and Prantl. General account of the families: Brassicaceae, Malvaceae, Fabaceae, Apiaceae, Acanthaceae, Apocyanaceae, Solanaceae, Euphorbiaceae, Liliacea, and Poacea.</p>
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Practical	<ol style="list-style-type: none"> 1. Preparation of temporary smear of salivary gland chromosome of Drosophila. 2. Identification of mutant phenotypes of Drosophila / Arabidopsis stock maintained in the department. 3. Bacterial culture liquid and plate for mutation studies. 4. Study of cell structure and measurement from onion leaf peels: demonstration of staining and mounting methods. 5. Study of plastids to examine pigment distribution in plants (Cassia / <i>Lycopersicon capsicum</i>). 6. Determination of hill activity in chloroplast of spinach. 7. Isolation and staining of mitochondria using Janus green. 8. Isolation of microorganisms from soil, air and water 9. Microbial culture, staining and identification 10. Study of specimens of representative examples of different class. 11. Study of permanent slides of different material of representative examples as per theory syllabus. 12. Study of disease symptoms in plants. 13. Isolation of Bacteria from various sources and their identification. 14. Isolation of Fungi from various sources and their identification. 15. Examination of fungal flora of different local ponds 16. Morphology and anatomy of Marchantia and Anthoceros 17. Morphology and anatomy of Selaginella and Marsilea 18. Morphology and anatomy of Cycas, Pinus and Ephedra 19. Study of vegetative and reproductive parts of species belonging to families
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Books Recommen ded	<ol style="list-style-type: none"> 1. Antherly, A.G., Girton J.R. and Mc Donald, 1999. The Science of Genetics. Saunders College Publishing Co. Forth Worth, USA. 2. Buchanan, B.B., Gruissem, W. and Jones, R.L. 2000. Biochemistry and Molecular Biology of Plants. American Society of Plant Physiologists, Maryland, USA. 3. David E. Sadava. 1993, Cell Biology: Organelles Structure and Function. Jones and Bartlett Publishers 4. Gardeners, J., Simmons, H.J. and Snustad, D.P. 1991. Principles of Genetics (8th Ed.). John Wiley and Sons N.Y. 5. Lowey 1991. Cell Structure and Function – Science 6. Robertis D. – Cell Biology, Science Publication. 7. Sharma, A.K. and Sharma, A. 1999. Plant Chromosome: Analysis, Manipulation and Engineering, Harwood Academic Publishers, Australia. 8. Singh, B.P. – Fundamentals of Genetics. 9. Snustad, D.P., and Simmons, M.J. 2000. Principles of Genetics (2nd Ed.). John Wiley and Sons. Inc., USA. 10. Verma, P.C. And Agrawal , V.K. – Cell Biology, Genetics, Molecular Biology, Evolution & Ecology, S.Chand Publication. 11. General microbiology By Pawar and Daginawala 12. Microbiology by Pelczar and Reid 13. Microbiology by PD Sharma 14. Saxena and Sarbhai – A textbook of Botany (Angiosperms) 15. Bendre and Kumar – Economic Botany 16. Singh and Jain – Taxonomy of Angiosperms 17. Pandey, B.P. – Textbook of Botany 18. Vashishta, B.R. – Bryophyta 19. Vashishta, P.C. – Pteridophyta 20. Vashishta, P.C. – Gymnosperms
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Proposed Syllabus and Structure

For

B.Sc. with Botany

Pt. Ravishankar Shukla University,

Raipur

B.Sc.- I (BOTANY) PAPER-I

BACTERIA, VIRUSES, FUNGI, LICHENS AND ALGAE

UNIT-I

VIRUSES: General characteristics, types of viruses based on structure and genetic material. Multiplication of viruses (General account), Lytic and Lysogenic cycle. Economic importance. Structure and multiplication of Bacteriophages. General account of Viroids, Virusoids, Prions, and Cyanophages. Mycorrhiza-Types and Significance.

UNIT –II

BACTERIA: General characteristics and classification (on the basis of morphology), fine structure of bacterial cell, Gram positive and Gram negative bacteria, mode of nutrition and reproduction vegetative, asexual and recombination (Conjugation, transformation and transduction), Economic importance. Microbial Biotechnology, *Rhizobium*, *Azotobacter*, *Anabena*.

UNIT-III

FUNGI: General account of habit and habitat, structure (range of thallus organization), cell wall composition, nutrition and reproduction in fungi. Heterothallism and Parasexuality. Outlines of classification of fungi. Economic importance of fungi. Life cycles of *Saprolegnia*, *Albugo*, *Aspergillus*, *Peziza*, *Agaricus*, *Ustilago*, *Puccinia*, *Alternaria* and *Cercospora*. VAM Fungi

UNIT-IV

ALGAE: Algae: General characters, range of thallus organization, Gaidukov phenomenon, reproduction, life cycle patterns and economic importance. Classification, Systematic position, occurrence, structure and life cycle of following genera : *Nostoc*, *Gloeocapsa*, *Volvox*, *Oedogonium*, *Vaucheria*, *Chara*, *Ectocarpus*, *Polysiphonia*.

UNIT –V

Lichens- General account, types, structure, nutrition, reproduction and economic importance. Mycoplasma: Structure and importance. Blue Green Algae (BGA) in nitrogen economy of soil and reclamation of Ushar land. Mushroom Biotechnology

Books Recommended:

Dubey R.C. and Maheshwari D.K. *A text book of Microbiology*, S. Chand Publishing, New Delhi

Presscott, L. Harley, J. and Klein, D. *Microbiology*, 7th edition, Tata Mc Graw-Hill Co. New Delhi.

Sharma P.D., *Microbiology and Plant pathology*, Rastogi Publication. New Delhi.

Alexopolous, C.J. Mims, C.W. and Blackwell, MM. *Introduction to Mycology*, John Wiley & Sons.

Dubey H.C. *An Introduction to Fungi*, Vikas Publishing, New Delhi

Mehrotra R.S. & Agrawal A., *Plant Pathology*, Tata McGraw, New Delhi

Sharma P.D. *Plant Pathology*, Rastogi Publishers, Meerut.

Srivastava, H.N. *Fungi*, Pradeep Publications, Jalandhar

Webster, J. & Weber, R. *Introduction to Fungi*, Cambridge University Press, Cambridge

Kumar H.D. *Introduction to phycology*, Aff. East-west Press, New Delhi

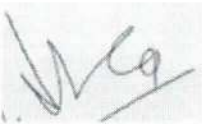
Lee RE, *Phycology*, Cambridge University Press U.K.

Srivastava, H.N., *Algae*, Pradeep Publications, Jalandhar

Pandey S.K. Quick *Concept of Botany*, Lambert Academic publishing, Germany

Pandey S.N., Mishra S.P. & Trivedi P.S. *A Text Book of Botany* (Vol.-I), Vikas Publishing, New Delhi

Singh, Pandey and Jain, *A Text book of Botany*, Rastogi Publication, Meerut.




(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

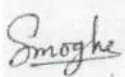


(Dr.Ranjana Shrivastava)

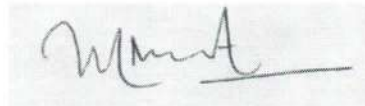
Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)



(Mr. Shivakant Mishra)

(Mr Sudheer Tiwari)

Govt. Bilasa Girls College, Bilaspur

B.Sc.-I (BOTANY) PAPER –II
(BRYOPHYTES, PTERIDOPHYTES, GYMNOSPERMS AND
PALAEOBOTANY)

UNIT –I

BRYOPHYTA: General characteristics, affinities, range of thallus organization, general classification and economic & ecological importance, Systematic position, occurrence, morphology anatomy and reproductive structure in *Riccia*, *Marchantia*, *Pellia*, *Anthoceros*, *Funaria*. Vegetative reproduction in Bryophytes, Evolution of sporophytes.

UNIT-II

PTERIDOPHYTES: General characteristics, affinities, economic importance and classification, Heterospory and seed habit, stellar system in Pteridophytes, Aposory and apogamy, Telome theory, *Azolla* as Biofertilizer.

UNIT-III

Systematic position, occurrence. Morphology, anatomy and reproductive structure of *Psilotum*, *Lycopodium*, *selaginella*, *Equisetum*, *Marsilea*.

UNIT-IV

Gymnosperm: General characteristics, affinities, economic importance and classification, Morphology, anatomy and reproduction in *Cycas*, *Pinus* and *Ephedra*.

UNIT-V

PALAEOBOTANY: Geological time scale, types of fossils and fossilization, Rhynia, study of some fossil gymnosperms. *Lygenopteris*

Books Recommended:

Parihar, N.S. *The Biology and Morphology of Pteridophytes*, Central Book Depot, Allahabad.

Parihar, N.S. *An introduction to Bryophyta Vol.I: Bryophytes* Central Book Depot, Allahabad.

Sambamurty, AVSS, *A textbook of Bryophytes, Pteridophytes, Gymnosperms and Palaeobotany*, IK International Publishers.

Pandey SN, Mishra SP and Trivedi PS *A text Book of Botany (Vol.II)*, Vikas Publishing, New Delhi

Bhatanagar, SP and Moitra, A. *Gymnosperm*, New Age International (P) Ltd., Publishers, New Delhi

Biswas C. and Johri BM, *The Gymnosperms*, Springer-Verlag, Germany.

Srivastava, HN, *Palaeobotany*, Pradeep Publications Jalandhar

Srivastava, HN, Bryophyta, Pradeep Publications Jalandhar

Singh, Pandey and Jain, *A Text Book of Botany*, Rastogi Publication, Meerut

Srivastava, HN, *Fundamentals of Pteridophytes*, Pradeep Publications, Jalandhar

B.Sc. I (BOTANY)

PRACTICAL

Study of external (Morphological) and internal (microscopic/anatomical) features of representative genera given in the theory.

1. Algae: Gloeocapsa, Scytonema, Gloeotrichia, Volvox, Oedogonium, Vaucheria, Chara, Ectocarpus, Sargassum, Batrachospermum
2. Gram staining
3. Fungi: Albugo, Aspergillus, Peziza, Agaricus, Puccinia, Alternaria and Cercospora
4. Bryophyta: Riccia, Marchantia, Pellia, Anthoceros, Sphagnum, Funaria
5. Pteridophyta: Lycopodium, Selaginella, Equisetum, Marsilea.
6. Gymnosperm: Cycas, Pinus, Ephedra.

PRACTICAL SCHEME

TIME: 4 Hrs.

M.M. : 50

1. Algae/Fungi/Gram Staining	10
2. Bryophyta/Pteridophyta	10
3. Gymnosperm	10
4. Spotting	10
5. Viva-Voce	05
6. Sessional	05



(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

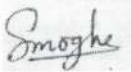


(Dr. Ranjana Shrivastava)

Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)

Govt. Bilasa Girls College, Bilaspur



(Mr. Shivakant Mishra)

(Mr. Sudheer Tiwari)

Scheme & Syllabus

Subject: Microbiology

**Approved at Central Board of Studies meeting held at
School of studies in Life science at Pt. Ravishankar
Shukla University Raipur
on august 21,2018**

MICROBIOLOGY

BSc-1st

Paper- I: General Microbiology & Basic Technique

UNIT-1: Fundamental, History & Developments

Introduction to major groups of microorganisms and fields of Microbiology; Historical development, Contributions of Pioneers (Louis Pasteur, Edward Jenner, Anton Von Leewenhoeck and Alexander Flemming). Beneficial and harmful microbes and its role in daily life.

UNIT-2: Basic Microbial Techniques

Methods of studying microorganism; Sterilization Techniques (Physical & Chemical Sterilization). Pure culture isolation Technique: Streaking, Waksman serial dilution and plating methods. cultivation, maintenance and preservation of pure cultures. Culture media & conditions for microbial growth. Staining technique: simple staining, Differential (gram staining), negative staining and acid fast staining.

UNIT-3: Virology & Bacteriology

Diversity of microbial world; Principle and classification of Viruses and Bacteria. Structure, Multiplication and Economic importance of viruses (TMV, Influenza virus & T₄-Phage). Structure & Functional organization of Bacteria, Cell wall of Gram Positive & Gram Negative bacteria; Economic importance of Bacteria.

UNIT-4: Mycology

General characteristics and classification of Fungi; Structure and Reproduction of fungi (*Rhizopus*, *Penicillium*, *Aspergillus*, *Yeast* & *Agaricus*). Common fungal disease of crops (Late & Early blight of potato, Smut of Rice, Tikka and Red rot of Sugarcane). Structure, reproduction and economic aspect of Lichens.

UNIT-5: Phycology & Protozoology

General characteristics and classification of Algae and Protozoa; General account & economic importance of Cyanobacteria (*Microcystis*, *Ocillatoria*, *Nostoc* & *Anabaena*) and Protozoa (*Amoeba*, *Paramecium*, *Euglena* and *plasmodium*).

Text Books Recommended:

1. General microbiology; Vol I & II, Powar C. B. and Dagainawala H. I., Himalaypub.house, Bombay.
2. A textbook of Microbiology; Dubey & Maheshwari.
3. Microbiology: An Introduction; G. Tor tora, B. Funke, C. Benjamin Cummings.
4. General Microbiology; Seventh edition by Hans G Schlegel, CambridgeUniversity Press.
5. Practical Microbiology; Dubey and Maheshwari.
6. Handbook of Microbiology; Bisen P.S., Varma K., CBS Publishers and Distributors, Delhi. General Microbiology by Brock.
7. General Microbiology by Pelzar et al.
8. Introduction on Microbial Techniques by Gunasekaran.

Pallana

Phorak

SB

Dsvak kalachkar

Amirala

Paper- II: Biochemistry and Physiology

UNIT-1: CARBOHYDRATES AND PROTEINS

Structure, classification and properties of Carbohydrates – Monosaccharide, Oligosaccharides (Disaccharides) and Polysaccharides. Structure, classification and properties of Protein - Amino acids, peptides and Proteins (Primary, Secondary, Tertiary and Quaternary structure).

UNIT-2: LIPIDS AND NUCLEIC ACIDS

Structure, classification and properties of Lipids; Saturated and Unsaturated fatty acids. Structure and properties of Nucleotides. Structure and forms of DNA; Replication of DNA. Types, Structure and Function of RNA.

UNIT-3: ENZYMES

Structure, Nomenclature, Classification and Properties of Enzymes. Mechanism of enzyme action, Enzyme kinetic: Michaelis-Menten. Equation & derivation, Enzyme inhibition, Lineweaver-Burk Plot (LB plot). Co-enzymes and their role; Allosteric enzymes and Isoenzyme. Extracellular enzymes and their role.

UNIT-4: MICROBIAL METABOLISM

Bacterial photosynthesis and Chemosynthesis: Glycolysis, TCA cycle and Oxidative Phosphorylation. Anaerobic catabolism of glucose; Fat Biosynthesis, alpha and beta oxidation of fatty acids. Deamination, trans-amination and Urea cycle.

UNIT-5: GROWTH PHYSIOLOGY & TRANSPORT SYSTEM

Bacterial cell division, Genome replication and Growth Phases, Conditions for growth. Plasma membrane & Transport system, types of transport (Passive and active). Diffusion (simple & facilitated), Concept of Uniport, Antiport and Symport;

Text Books Recommended:

1. General Biochemistry by A.C. Deb.
2. Biochemistry by Lehninger (Kalyani publication)
3. Biochemistry by U. Satyanarayan.
4. Microbiology by Anantanarayan and Panikar.
5. Fundamentals of Biochemistry; J L Jain, Sunjay Jain, Nitin Jain; S. Chand & Company Ltd
6. Practical Biochemistry: Principles and Techniques; *5th Edition*; Keith Wilson and John Walker
7. Biophysical Biochemistry: Principles and Techniques; Avinash Upadhyay, Kakoli Upadhyay and Nirmalendu Nath; Himalaya Publishing House.

Zaitana

Phenak

ASB

DSVakka

Nirmal

PRACTICAL**M. M. 50**

Basic information about autoclave, hot air oven, laminar air flow and other laboratory instruments

Preparation of solid/liquid culture media.

Isolation of single colonies on solid media.

Enumeration of bacterial numbers by serial dilution and plating.

Simple and differential staining.

Measurement of microorganism (micrometry) and camera Lucida drawing of isolated organism.

Determination of bacterial growth by optical density measurement.

General and specific qualitative test for carbohydrates

General and specific qualitative test for amino acids

General and specific qualitative test for lipids

Estimation of protein

Estimation of blood glucose

Assay of the activity of amylases

Assay of the activity of Phosphates

Scheme of Practical Examination

Time - 4 hours

M.M. 50

1. Exercise on Microbiological methods	10
2. Exercise on Biochemical tests	10
3. Exercise on staining method	05
4. Spotting (1-5)	10
5. Viva-Voce	05
6. Sessional	10

Total 50

Zallana

ASB

Phanalt

DSVEN KALECHER

Mirala

Zoology
B.Sc. Part I 2018-19
Paper I
(Cell Biology and Non-chordata)

Unit:I

1. The cell (Prokaryotic and Eukaryotic)
2. Organization of Cell: Extra-nuclear and nuclear
Plasma membrane, Mitochondria, Endoplasmic reticulum, Golgi body, Ribosome and Lysosome).
3. Nucleus, Chromosomes, DNA and RNA

Unit:II

1. Cell division (Mitosis and Meiosis).
2. An elementary idea of Cancer cells And Cell transformation.
3. An elementary idea of Immunity: Innate & Acquired Immunity, Lymphoid organs, Cells of Immune System, Antigen, antibody and their interactions

Unit:III

- General characters and classification of Phylum Protozoa, Porifera, and Coelenterata up to order.
- 2. Protozoa: Type study - Paramecium,
- 2. Porifera: Type study - Sycon.
- 3. Coelenterata: Type study - Obelia

Unit: IV

- General characters and classification of Phylum Platyhelminthes, Nematelminthes, Annelida and Arthropoda up to order.
- 2. Platyhelminthes and Nematelminthes: Type Study – Fasciola, Ascaris
- 3. Annelida: Type Study - Pheretima.
- 4. Arthropoda: Type Study - Palaemone.

Unit:V

- General characters and classification of Phylum Mollusca and Echinodermata up to order.
- 2. Mollusca: Type Study - Pila.
- 3. Echinodermata- Type Study- Asterias (Starfish).

Zoology
B.Sc. Part I 2018-19
Paper II
(Chordata and Embryology)

Unit:I

1. Classification of Hemichordata
2. Hemichordata- Type study-Balanoglossus
3. Classification of Chordates upto orders..
4. Protochordata-Type study - Amphioxus.
5. A comparative account of Petromyzon and Myxine.

Unit-II

1. Fishes-Skin & Scales, migration in fishes, Parental care in fish.
2. Amphibia-Parental care and Neoteny.
3. Reptilia- Poisonous & Non-poisonous Snakes, Poison apparatus, snake venom and Extinct Reptiles

Unit:-III

1. Birds- Flight Adaptation, Migration, and Perching mechanism, Discuss-Birds are glorified reptiles.
2. Mammals-Comparative account of Prototheria, Metatheria, Eutheria and Affinities.
3. Aquatic Mammals and their adaptations.

Unit:IV

1. Fertilization

2. Gametogenesis, Structure of gamete and Types of eggs
3. Cleavage
4. Development of Frog up to formation of three germ layers.
5. Parthenogenesis

Unit:V

1. Embryonic induction, Differentiation and Regeneration.
2. Development of Chick (a) up to formation of three germ layers, (2) Extra-embryonic membranes.
3. Placenta in mammals.

Zoology
B.Sc. Part I 2018-19
Practical

The practical work will, in general be based on the syllabus prescribed in theory and the candidates will be required to show knowledge of the following:-

- Dissection of Earthworm, Cockroach, Palaemon and Pila
- Minor dissection—appendages of Prawn & hastate plate, mouth parts of insects, radulla of Pila.

(Alternative methods: By Clay/Thermacol/drawing/Model etc.)

- Adaptive characters of Aquatic, terrestrial, aerial and desert animals.
- Museum specimen invertebrate
- Slides- Invertebrates, frog embryology, Chick embryology and cytology,

Scheme of Practical Exam

Time: 3hrs

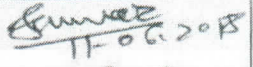
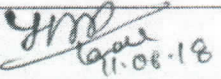
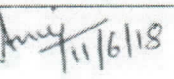
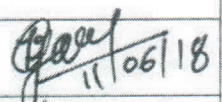
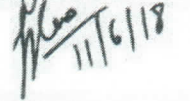
1. Major Dissection	10 Marks
2. Minor Dissection	05 Marks
3. Comments on Excercise based on Adaptation	04 Marks
4. Cytological Preparation	05 Marks
5. Spots-8 (Slides-4, Specimens-4)	16 Marks
6. Sessional	10 Marks

प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम— **B.Sc. Computer Science**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	COMPUTER HARDWARE	COMPUTER FUNDAMENTAL	Updation Required
2.	1 st Year	COMPUTER SOFTWARE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 st Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 nd Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
5.	2 nd Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
6.	2 nd Year	PRACTICAL	PRACTICAL	No Change
7.	3 rd Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
8.	3 rd Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
9.	3 rd Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B.Sc. PART - I
COMPUTER SCIENCE
PAPER - I
COMPUTER FUNDAMENTAL
(PAPER CODE - 0805)

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Classification and Organization of Computers

History of computer, Generation of computer, Calculator vs. Computer, Digital and Analog computers and its evolution. Major components of digital computers; Memory addressing capability of CPU. Word length and processing speed of computers, Microprocessors, Single chip Microcomputer, Large and small computers, Users interface, Hardware, software and firmware, multi programming multi user system, Dumb smart and intelligent terminals, computer network and multi-processing, LAN parallel processing, Flynn's classification of computers, Control flow and data flow computers

UNIT - II Central Processing Unit

Parts of CPU- ALU, Control Unit, Registers, Architecture of Intel 8085 microprocessor, Instructions for Intel 8085 microprocessor, Instruction Word size, Various addressing mode, Interrupts, Some special Control signals, Instruction cycle, fetch and execute operation, Timing Diagram, Instruction flow and data flow.

UNIT - III Memory

Memory hierarchy, Primary and Secondary Memory, Cache memory, Virtual Memory, Direct Access Storage Devices (DASD), Destructive and Nondestructive Readout, Program and data Memory, Memory Management Unit (MMU), PCMCIA Cards and Slots.

UNIT - IV I/O Devices

I/O devices- Keyboard, Mouse, Monitor, Impact and Non-Impact Printers, Plotter, Scanner, other Input/output devices: Scan method of Display- Raster Scan, Vector Scan, Bit Mapped Scan, CRT Controller, I/O Port- Programmable and Non Programmable I/O ports, Inbuilt I/O ports- Parallel and Serial ports, USB, IEEE 1394, AGP, Serial data transfer scheme, Micro controller, Signal Processor, I/O processor, Arithmetic Processor.

UNIT-V SOFTWARE AND PROGRAMMING TECHNIQUES

Application and System Software: Introduction, Example, Difference etc., Introduction to Open Source Software such as Unix/Linux (Ubuntu), Libre office etc., Introduction to Machine Language, Assembly Language and High Level Language, Programming Techniques, Stack, Subroutine, Debugging of programs, Macro, Program Design, Software development, Flow Chart, Multi programming, Multiuser, Multitasking Protection, Operating system and Utility programs, Application packages.

TEXT BOOKS:

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
3. Fundamentals of Computers, V. Rajaraman, PHI, Sixth Edition.
4. Computers Today, Donald H. Sanders, McGraw-Hill, Third Edition.
5. IBM PC and Clones, B Govindarajalu, McGraw-Hill, Second Edition
6. UNIX Concepts and Applications, Sumitabha Das, Tata McGraw-Hill, Fourth Edition.

Sunder
11-06-2018

Gayatri
11/06/18

JMP
11-06-18

Amey
11/6/18
(Dr. A.K. Drivedi)

Pranav
11/6/18

B.Sc. PART - I
COMPUTER SCIENCE
PAPER II
PROGRAMMING IN 'C' LANGUAGE
(Paper Code - 0806)

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I

Fundamentals of C Programming: Overview of C: History of 'C', Structure of 'C' program. Keywords, Tokens, Data types, Constants, Literals and Variables, Operators and Expressions: Arithmetic operators, Relational operator, Logical operators, Expressions, Operator: operator precedence and associativity, Type casting, Console I/O formatting, Unformatted I/O functions: getch(), getchar, getchc(), getc(), putc(), putchar().

UNIT- II

Control Constructs: If-else, conditional operators, switch and break, nested conditional branching statements, loops: do while, while, for, Nested loops, break and continue, goto and label, exit function.

Functions: Definition, function components: Function arguments, return value, function call statement, function prototype, Types of function, Scope and lifetime of variable, Call by value and call by reference. Function using arrays, function with command line argument. User defined function: maths and character functions, Recursive function.

UNIT-III

Array: Array declaration, One and Two dimensional numeric and character arrays, Multidimensional arrays.

String: String declaration, initialization, string manipulation with/without using library function.

Structure, Union and Enum - Structure: Basics, declaring structure and structure variable, typedef statement, array of structure, array within structure, Nested structure; passing structure to function, function returning structure. **Union:** basics, declaring union and union variable, **Enum:** declaring enum and enum variable.

UNIT- IV

Pointer: Definition of pointer, Pointer declaration, Using & and * operators. Void pointer, Pointer to pointer, Pointer in math expression, Pointer arithmetic, Pointer comparison, Dynamic memory allocation functions – malloc, calloc, realloc and free, Pointer vs. Array, Array of pointer, Pointer to array, Pointers to function, Function returning pointer, Passing function as Argument to function, Pointer to structure, Dynamic array of structure through pointer to structure.

UNIT-V

File Handling and Miscellaneous Features: File handling: file pointer, File accessing functions: fopen, fclose, fputc, fgetc, fprintf, fscanf, fread, fwrite, fflush, rewind, fseek, ferror. File handling through command line argument. Introduction to C preprocessor #include, #define, Conditional compilation directives: #if, #else, #elif, #endif, #ifndef etc.

TEXT BOOKS:

1. Programming in ANSI C, E Balagurusamy, Tata McGraw-Hill, Third Edition.
2. Let Us C, Yashwant Kanetkar, Infinity Science Press, Eighth Edition.
3. Mastering C, K R Venugopal, Tata McGraw-Hill.
4. The C Programming Language, Brian W. Kernighan, Dennis M. Ritchie, Prentice Hall, Second Edition.
5. Applications Programming in ANSI C, R. Johnsonbaugh, Martin Kalin, Macmillan, Second Edition.
6. The Spirit of C, Mullish Cooper, Jaico publishing House.
7. How to solve it by Computer, R.G. Dromey, Pearson Education.

Sumit
11-06-2018

Paul
11/06/18
Dr. A. K. D. Prasad

JMP
11-06-18
Hemishankar Prasad Tadi

Anuj
11/6/18
(Dr. A. K. D. Prasad)
Me
11/6/18
Dr. A. K. D. Prasad

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Suresh
11-06-2018
(Dr. Suresh Kumar)

Anuj
11/6/2018
(Dr. A.K. Rainedi)

Gaur
11/6/18
(L.K. Gaur)

Jyoti
11/6/18
(Dr. J. D. Jyoti)

Jyoti
Tandale
11-06-18
Hemishankar Prasad Tandale

Pt. Ravi Shankar Shukl University, Raipur

Department of Political Science

Programme Outcomes for M.A. Political Science

Political Science as the *Master Science* had started as a part of history, and later on as part of International Relations. Later, it has emerged as an independent discipline, and now comprises of local to global politics.

The programme ranges from International Relations to Public Administration and Local Self Governments; from Indian Constitution to Comparative Politics; from theoretical aspects of politics, to real politicking. With project work to group projects, seeds of research, and thereby a scientific orientation, is implanted in the young but maturing minds of the students.

This offers ample opportunity to students to know the ideas, to visualise things, and to analyse events.

First Semester

I	भारतीय राजनीतिक चिंतन Indian Political Thought	<i>Knowledge Gained:</i> Knowing the ideas of Indian thinkers. <i>Skill Gained:</i> Understanding text-context relationship of political thought and the relevance of key philosophical ideas. <i>Competency Gained:</i> Ability to contextualise the concepts of ancient eras.
II	भारतीय शासन एवं राजनीति Indian Government and Politics	<i>Knowledge Gained:</i> The core of Indian government systems as defined and designed in the Constitution. <i>Skill Gained:</i> Understanding implications of various government decisions down to street demonstrations. <i>Competency Gained:</i> To see things in wider perspective by learning to analyse the Constitution.
III	तुलनात्मक राजनीति एवं राजनीतिक विश्लेषण Comparative Politics and Political Analysis	<i>Knowledge Gained:</i> Various forms of Government and administration prevalent around the world. <i>Skill Gained:</i> Comparing various formats and to choose the better one. <i>Competency Gained:</i> Ability to look beyond the horizon as far as governance and participation in it is concerned.
IV	अंतर्राष्ट्रीय संगठन International Organisations	<i>Knowledge Gained:</i> Understanding the contemporary relevance of the UN and its relationship with other Inter-Governmental Organisations. <i>Skill Gained:</i> To contextualise various international crises and to ponder over ways to their resolution. <i>Competency Gained:</i> Faculty to represent the country at various platforms, armed with the proper knowledge of international organizations.

duel
25/07/2022

R. J. J. J.
25.07.2022

25/7/2022

Second Semester

I	पाश्चात्य राजनीतिक चिंतन Western Political Thought	<p><i>Knowledge Gained:</i> Knowing the political ideas of the West</p> <p><i>Skill Gained:</i> Understanding text-context relationship of political thought and the relevance of key philosophical ideas.</p> <p><i>Competency Gained:</i> Ability to contextualise the concepts of ancient eras</p>
II	भारत में राज्यों की राजनीति State Politics in India	<p><i>Knowledge Gained:</i> Knowing the government system of the state and its comparison with the Union's set-up.</p> <p><i>Skill Gained:</i> Ability to compare similar yet different systems in the same structure, and understanding its relevance.</p> <p><i>Competency Gained:</i> To recognise the different roles of governance at different levels.</p>
III	विकासशील देशों की तुलनात्मक राजनीति एवं विश्लेषण Comparative Politics of Developing Countries and Analysis	<p><i>Knowledge Gained:</i> Knowing various forms and styles of governance and governments.</p> <p><i>Skill Gained:</i> To be able to analyse difference in governance across cultures and ethos.</p> <p><i>Competency Gained:</i> To realise the value, importance and influence of social norms on government patterns.</p>
IV	भारत की विदेश नीति Foreign Policy of India	<p><i>Knowledge Gained:</i> Knowing how India deals world issues for world peace in general and for her own benefit in particular.</p> <p><i>Skill Gained:</i> Diplomacy and its efficacy in resolving issues.</p> <p><i>Competency Gained:</i> To understand that discussions resolve more issues than wars.</p>

Third Semester

I	अंतर्राष्ट्रीय राजनीति के सिद्धांत Theories of International Politics	<p><i>Knowledge Gained:</i> Knowing the theoretical aspects of how nations see the issues.</p> <p><i>Skill Gained:</i> Learning to frame ideas from general to specific, and applying from specific to general.</p> <p><i>Competency Gained:</i> To find out commonality in different actions and to be able to foresee things.</p>
II	लोक प्रशासन भाग – I Public Administration Part – I	<p><i>Knowledge Gained:</i> Understanding how government works at the ground level, and about the human resource that serves as foot soldier.</p> <p><i>Skill Gained:</i> To deal with personnel around, and lead them well.</p> <p><i>Competency Gained:</i> To be a good administrator if a chance comes, whether in government or out of it.</p>
III	शोध प्रविधि भाग – I Research Methodology Part – I	<p><i>Knowledge gained:</i> About philosophy of social science and the research methods.</p> <p><i>Skill gained:</i> Statistical competence and field work.</p> <p><i>Competency gained:</i> To apply the knowledge in doing research in Political Science</p>

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IV	छत्तीसगढ़ का शासन एवं राजनीति Government and Politics of Chhattisgarh	<i>Knowledge Gained:</i> <i>Skill Gained:</i> <i>Competency Gained:</i>
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Fourth Semester

I	अंतर्राष्ट्रीय राजनीति के समकालीन मुद्दे Contemporary Issues of International Politics	<i>Knowledge Gained:</i> Knowing the contemporary issues in world politics. <i>Skill Gained:</i> To see through the issues and to unmask the designs of player of power. <i>Competency Gained:</i> To apply acceptable theories while fulfilling national interest.
II	लोक प्रशासन भाग – II Public Administration Part – II	<i>Knowledge Gained:</i> Understanding how government works at the ground level, and about the human resource that serves as foot soldier. <i>Skill Gained:</i> To deal with personnel around, and lead them well. <i>Competency Gained:</i> To be a good administrator if a chance comes, whether in government or out of it.
III	शोध प्रविधि भाग – II Research Methodology Part – II	<i>Knowledge gained:</i> About philosophy of social science and the research methods. <i>Skill gained:</i> Statistical competence and field work. <i>Competency gained:</i> To apply the knowledge in doing research in Political Science
IV	छत्तीसगढ़ का राजनीतिक इतिहास Political History of Chhattisgarh	<i>Knowledge Gained:</i> To know the rich history and culture of one's own state. <i>Skill Gained:</i> Fusion of aspirations while retaining the cultural heritage. <i>Competency Gained:</i> Amalgamation of history and politics.
V	परियोजना कार्य और मौखिक परीक्षा Project Work and Viva voce	Overall, application of knowledge acquired over the Semesters. Project Work enables students to do micro-level research, whereas the Viva voce lets them present, leading to personality enhancement.

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**पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर के स्नातकोत्तर (राजनीति विज्ञान) के पाठ्यक्रम
(नियमित विद्यार्थियों के लिए) में संशोधन हेतु सुझाव**

सेमेस्टर - 1

क्र.सं.	वर्तमान पाठ्यक्रम	प्रस्तावित संशोधन	औचित्य
प्रश्नपत्र - 1 - भारतीय राजनीतिक चिंतन			
1		यथावत	
2		यथावत	
3	सावरकर, अम्बेडकर और जयप्रकाश नारायण के विचार	अम्बेडकर, जयप्रकाश नारायण, भगत सिंह, सुभाष चंद्र बोस के विचार	विशुद्ध अहिंसा से भिन्न विचारधारा को मुख्यधारा में जोड़ने के उद्देश्य से
4	एम.एन. राय, लोहिया व दीनदयाल उपाध्याय के विचार	एम.एन. राय, लोहिया, सावरकर व दीनदयाल उपाध्याय के विचार	आधुनिक भारत को आकार देने वाले या प्रभावित करने वाले दर्शनों को स्थान देले के लिए

प्रश्नपत्र - 2 - भारतीय शासन एवं राजनीति			
1	राष्ट्रीय आंदोलन, भारतीय संविधान की पृष्ठभूमि, संगठन, कार्यप्रणाली, वैचारिक आधार, स्रोत, प्रस्तावना, विशेषतायें	भारतीय संविधान के वैचारिक आधार, प्रस्तावना, संविधान अपने गतिज रूप में, सामाजिक और आर्थिक परिवर्तन के साधन के रूप में	स्नातक स्तर पर पढ़ा जा चुका
2	मौलिक अधिकार, मौलिक कर्तव्य, नीति निर्देशक तत्व, संविधान संशोधन की प्रक्रिया सामाजिक और आर्थिक परिवर्तन के साधन के रूप में। महिला अधिकार और लैंगिक मुद्दे	महत्वपूर्ण संवैधानिक संशोधन, आपातकालीन प्रावधान, अनु. 356 के संदर्भ में राज्यपाल, बोम्मई निर्णय, केन्द्र-राज्य सम्बन्ध (जीएसटी सहित), अनुसूची V और VI	
3	संधिया कार्यपालिका - राष्ट्रपति, संसदात्मक व्यवस्था, कार्यशैली, प्रधानमंत्री एवं मंत्री परिषद् संघीय न्यायपालिका - सर्वोच्च न्यायालय, न्यायिक सक्रियता, न्यायिक सुधार, न्यायिक पुनरावलोकन	प्रधानमंत्री - संघीय मत्ता का केन्द्र बिंदु (राष्ट्रपति, मंत्री परिषद्, और राज्यों पर प्रभाव के संदर्भ में), राष्ट्रीय राजनीति में प्रधानमंत्री, संसद न्यायपालिका, न्यायिक सुधार, न्यायिक सक्रियता, निष्ठावान (committed) न्यायपालिका भारत में निर्वाचन, भारत निर्वाचन आयोग, चुनाव सुधार	
4	भारतीय राजनीति की चुनौतियां - जातिवाद, क्षेत्रवाद, भाषावाद, धर्म, भ्रष्टाचार, सम्प्रदायवाद एवं अपराधीकरण, किसान आंदोलन	भारतीय लोकतंत्र की चुनौतियां - धनबल, अपराधीकरण, गठबंधनवाद, दलबदल, असहिष्णुता, भ्रष्टाचार, धार्मिक संकीर्णता	
			अधिक प्रासंगिक रखने के उद्देश्य से संवैधानिक संस्थाओं के क्रियात्मक (functional) पक्ष पर जोर
			समकालीन और ज्वलंत प्रश्नों को शामिल करने के उद्देश्य से

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प्रश्नपत्र - 3 - तुलनात्मक राजनीति एवं राजनीतिक विश्लेषण			
1		यथावत	
2		यथावत	
3		यथावत	
4		यथावत	

प्रश्नपत्र - 4 - अंतर्राष्ट्रीय संगठन			
1		यथावत	
2	संयुक्त राष्ट्र संघ - निर्माण, संरचना, सफलता एवं असफलता एवं मूल्यांकन	संयुक्त राष्ट्र संघ - पृष्ठभूमि विभिन्न अंग - संरचना, कार्य और कार्यप्रणाली, मूल्यांकन	व्यावहारिक करने के लिए
3	संयुक्त राष्ट्र संघ - निर्माण, संरचना, विवादों के समाधान के शांतिपूर्ण एवं बाध्यकारी उपाय, आर्थिक एवं सामाजिक विकास में संयुक्त राष्ट्र संघ की भूमिका	अंतर्राष्ट्रीय संगठनों के प्रकार: सैन्य (नाटो आदि), व्यापारिक-वाणिज्यिक (सार्क, ईयू, आसियान, ब्रिक्स, ओपेक आदि)	पुनरावृत्ति रोकने के लिए
4	क्षेत्रीय संगठन - सार्क, आसियान, यूरोपीय यूनियन, ब्रिक्स, ओपेक	अंतर्राष्ट्रीय संगठनों के प्रकार: गैरराज्यीय (यूनेस्को, अंतर्राष्ट्रीय न्यायालय) Funding (IMF, ADB, World Bank आदि) अन्य - क्राइ, एससीओ आदि	अंतर्राष्ट्रीय संगठनों के अध्ययन का दायरा बढ़ाने के लिए

सेमेस्टर - 2

प्रश्नाधीन पाठ्यक्रम	प्रस्तावित संशोधन	औचित्य
प्रश्नपत्र - 1 - पाश्चात्य राजनीतिक चिंतन		
1	यथावत	
2	यथावत	
3	यथावत	
4	यथावत	

प्रश्नपत्र - 2 - भारत में राज्यों की राजनीति			
1		यथावत	
2		यथावत	
3		यथावत	
4		यथावत	

प्रश्नपत्र - 3 - विकासशील देशों की तुलनात्मक राजनीति एवं विश्लेषण			
1		यथावत	

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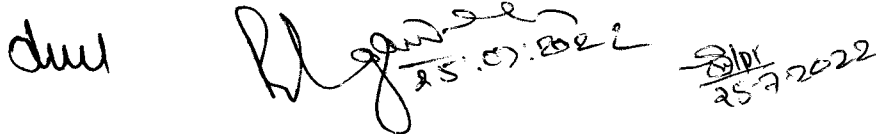
2		यथावत	
3		यथावत	
4		यथावत	

प्रश्नपत्र - 4 - भारत की विदेश नीति			
1		यथावत	
2		यथावत	
3		यथावत	
4		यथावत	

सेमेस्टर - 3

प्रश्नाधीन पाठ्यक्रम	प्रस्तावित संशोधन	औचित्य	
प्रश्नपत्र - 1 - अंतर्राष्ट्रीय राजनीति के सिद्धांत			
1		यथावत	
2		यथावत	
3		यथावत	
4	निःशस्त्रीकरण, परमाणु अप्रसार - सीटीबीटी, एन.पी.टी.। क्षेत्रीय संगठन: सार्क, आसियान, ओपेक	निःशस्त्रीकरण, परमाणु अप्रसार - सीटीबीटी, एन.पी.टी.।	प्रथम सेमेस्टर में संगठनों के अध्याय में शामिल भाग हटाये गये

प्रश्नपत्र - 2 - लोक प्रशासन भाग - 1			
1	लोक प्रशासन: परिभाषा, प्रकृति, क्षेत्र, निजि प्रशासन से अंतर। अध्ययन के उपागम - व्यावहारिकवादी, तुलनात्मक, निर्णयपरक विकास प्रशासन एवं नवीन लोक प्रशासन	लोक प्रशासन: परिभाषा, प्रकृति, क्षेत्र, निजि प्रशासन से अंतर। अध्ययन के उपागम - व्यावहारिकवादी, तुलनात्मक लोक प्रशासन। विकास प्रशासन एवं नवीन लोक प्रशासन	भाषा और वर्तनी सम्बन्धी त्रुटियों का निराकरण
2	संगठन के सिद्धांत: नियंत्रण का क्षेत्र, आदेश की एकता, पदसोपान, प्रत्यायोजना, समन्वय।	संगठन के सिद्धांत: नियंत्रण का क्षेत्र, आदेश की एकता, पदसोपान, प्रत्यायोजना, समन्वय। केन्द्रीयकरण, विकेन्द्रीयकरण। मुख्य कार्यपालिका - प्रकार एवं भूमिका, सूत्र एवं स्टाफ अभिकरण। विभागीय संगठन - लोक निगम, स्वतंत्र नियामकीय आयोग।	अध्यायों के एकीकरण के उद्देश्य से
3	केन्द्रीयकरण, विकेन्द्रीयकरण। मुख्य कार्यपालिका - प्रकार एवं भूमिका, सूत्र एवं स्टाफ अभिकरण,	कार्मिक प्रशासन - भर्ती, प्रशिक्षण, पदवर्गीकरण, पदोन्नति, सेवानिवृत्ति, संघ लोक	चतुर्थ से तृतीय इकाई में स्थानांतरित। एक प्रसंगिक अवधारणाक जोड़ी गई।



 25.07.2022

	विभागीय संगठन, स्वतंत्र नियामकीय आयोग।	सेवा आयोग। नौकरशाही।	
4	लोक निगम - भर्ती, पदोन्नति, प्रशिक्षण, सेवानिवृत्ति, संघ लोक सेवा आयोग। नौकरशाही।	विकास प्रशासन : विकास प्रशासन की अवधारणा और विकास। रिग्स का विकास मॉडल। लोक नीति	पाठ्यक्रम में नवीनतम सिद्धांत शामिल करने के उद्देश्य से

प्रश्नपत्र - 3 - शोध प्रविधि भाग - 1			
1	सामाजिक शोध की प्रकृति, महत्व एवं उपयोग। शुद्ध एवं व्यावहारिक शोध, शोध समस्या की पहचान, शोध अभिकल्प, उपकल्पना का निर्माण एवं परीक्षण	सामाजिक शोध की प्रकृति, महत्व एवं उपयोग। शुद्ध एवं व्यावहारिक शोध, शोध समस्या की पहचान, शोध अभिकल्प, उपकल्पना का निर्माण एवं परीक्षण।	वर्तनी सम्बन्धी त्रुटियों का निराकरण।
2		यथावत	
3		यथावत	
4		यथावत	

प्रश्नपत्र - 4 - छत्तीसगढ़ का शासन एवं राजनीति			
1		यथावत	वर्तनी और भाषा में सुधार
2	छत्तीसगढ़ में स्थानीय स्वशासन एवं पंचायती राज छत्तीसगढ़ में जिला प्रशासन एवं जिलाधीश की भूमिका	छत्तीसगढ़ में स्थानीय स्वशासन एवं पंचायती राज, पेसा छत्तीसगढ़ में जिला प्रशासन एवं जिलाधीश की भूमिका	अद्यतन रखने हेतु
3		यथावत	वर्तनी और भाषा में सुधार
4		यथावत	

सेमेस्टर - 4

प्रश्नाधीन पाठ्यक्रम		प्रस्तावित संशोधन	औचित्य
प्रश्नपत्र - 1 - अंतर्राष्ट्रीय राजनीति के समकालीन मुद्दे			
1	प्रमुख राष्ट्रों की विदेश नीतियां - भारत, संयुक्त राज्य अमेरिका, रूस, चीन	प्रमुख राष्ट्रों की विदेश नीतियां - संयुक्त राज्य अमेरिका, रूस, चीन	भारत की विदेश नीति द्वितीय सेमेस्टर में एक पूर्ण प्रश्नपत्र है
2		यथावत	वर्तनी और भाषा में सुधार
3		यथावत	
4		यथावत	

प्रश्नपत्र - 2 - लोक प्रशासन भाग - 2

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25.07.2022

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1	कार्मिकों के समस्याओं के निवारण की व्यवस्था (भारत के प्रशासन के कार्मिक प्रशासन के विशेष संदर्भ में)	लोक नीति: नीति निर्माण की प्रक्रिया, नीति निष्पादन एवं विश्लेषण, नीति निर्माण के नवीन उपागम संगठन और प्रक्रिया - अर्थ, प्रकृति, सिद्धांत	पाठ्यक्रम को अद्यतन रखने हेतु
2		यथावत	
3		यथावत	
4		यथावत	

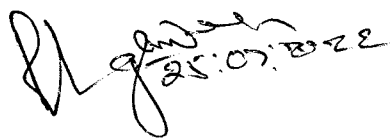
प्रश्नपत्र - 3 - शोध प्रविधि भाग - 2			
1		यथावत	
2	अनुसंधान दल, अनुसंधान की समस्या, तथ्यों का वर्गीकरण, सारणीयन	अनुसंधान दल, अनुसंधान की समस्या, तथ्यों का वर्गीकरण, सारणीयन, संकेतीकरण	अधिक समसामयिक रखने के लिए
3		यथावत	
4		यथावत	

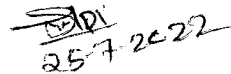
प्रश्नपत्र - 4 - छत्तीसगढ़ का राजनैतिक इतिहास			
1		यथावत	
2		यथावत	
3		यथावत	
4		यथावत	

प्रश्नपत्र - 5 - परियोजना कार्य और मौखिक परीक्षा			
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1. पूरे पाठ्यक्रम में आवश्यकतानुसार भाषा और वर्तनी की त्रुटियां सुधारी गयी हैं जिनका बहुधा स्पष्ट उल्लेख नहीं किया गया है।
2. अमहाविद्यालयीन परीक्षार्थियों का पाठ्यक्रम विगत वर्ष के अनुसार ही रखने का निर्णय लिया गया।

द्वारा

 25.07.2022

 25.7.2022

स्नातकोत्तर (राजनीति विज्ञान) के लिए पाठ्यक्रम

शिक्षण सत्र 2022-23 से प्रभावी

पाठ्यक्रम का प्रारूप: एम.ए. राजनीति विज्ञान (नियमित विद्यार्थियों के लिए) चार सेमेस्टरों में विभक्त होगा। प्रत्येक सेमेस्टर में चार-चार इकाइयों वाले चार प्रश्नपत्र होंगे। चौथे सेमेस्टर में 100 अंकों की एक अतिरिक्त परीक्षा होगी जिसमें 50 अंक परियोजना कार्य के लिए और 50 अंक मौखिक परीक्षा के होंगे।

Course Format: M.A Political Science (for Regular Students) shall be of four semesters. Each semester shall comprise of four papers of four Units each. In the fourth Semester, there will be an extra examination of 100 marks, out of which 50 marks shall be assigned to Project Work and 50 marks to *Viva voce*.

First and Second Semesters

Paper	Semester – I	Marks		Semester – II	Marks	
		Theory	Internal		Theory	Internal
I	भारतीय राजनीतिक चिंतक Indian Political Thought	80	20	पाश्चात्य राजनीतिक चिंतन Western Political Thought	80	20
II	भारतीय शासन एवं राजनीति Indian Government and Politics	80	20	भारत में राज्यों की राजनीति State Politics in India	80	20
III	तुलनात्मक राजनीति एवं राजनीतिक विश्लेषण Comparative Politics and Political Analysis	80	20	विकासशील देशों की तुलनात्मक राजनीति एवं विश्लेषण Comparative Politics of Developing Countries	80	20
IV	अंतर्राष्ट्रीय संगठन International Organisations	80	20	भारत की विदेश नीति Foreign Policy of India	80	20
Total Marks – 400				Total Marks – 400		

Third and Fourth Semesters

Paper	Semester – III	Marks		Semester – IV	Marks	
		Theory	Internal		Theory	Internal
I	अंतर्राष्ट्रीय राजनीति के सिद्धांत Principles of International Politics	80	20	अंतर्राष्ट्रीय राजनीति के समकालीन मुद्दे Contemporary Issues of International Politics	80	20
II	लोक प्रशासन भाग – I Public Administration Part – I	80	20	लोक प्रशासन भाग – II Public Administration Part – II	80	20
III	शोध प्रविधि भाग – I Research Methodology Part – I	80	20	शोध प्रविधि भाग – II Research Methodology Part – II	80	20

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IV	छत्तीसगढ़ का शासन एवं राजनीति Government and Politics of Chhattisgarh	80	20	छत्तीसगढ़ का राजनैतिक इतिहास Political History of Chhattisgarh	80	20
Total Marks – 400				परियोजना कार्य/Project Work	50	
				मौखिक परीक्षा/Viva voce	50	
				Total Marks – 500		

टीपः

1. उपरोक्त योजना के अनुसार नियमित विद्यार्थियों के लिए चार चार प्रश्नपत्रों के कुल चार सेमेस्टर होंगे। चारों सेमेस्टर्स में प्रत्येक प्रश्नपत्र में 80-80 अंकों की सैद्धांतिक परीक्षा होगी। 20-20 अंक आंतरिक परीक्षा के लिए निर्धारित होंगे।
2. चौथे सेमेस्टर में उपरोक्त के अतिरिक्त एक अतिरिक्त परीक्षा परियोजना कार्य और मौखिक परीक्षण पर आधारित होगी। 50 अंक परियोजना के लिए और 50 अंक मौखिक परीक्षा के लिए निर्धारित होंगे।
3. परियोजना कार्य के लिए चारों सेमेस्टर में प्रस्तावित पाठ्यक्रम से कोई भी विषय लिया जा सकेगा।
4. इस प्रकार पूरा पाठ्यक्रम 1700 अंकों का होगा।
5. आंतरिक मूल्यांकन के लिए महाविद्यालय स्तर पर एक सेमेस्टर में दो परीक्षाएँ होंगी। दोनों में से अधिकतम अंक विश्वविद्यालय को प्रेषित किए जायेंगे।
6. विद्यार्थियों में सहयोग भावना, और सामूहिक अध्ययन को बढ़ावा देने के लिए प्रथम सेमेस्टर के द्वितीय प्रश्नपत्र (भारतीय शासन एवं राजनीति) तथा तृतीय सेमेस्टर के प्रथम प्रश्नपत्र (अंतर्राष्ट्रीय राजनीति के सिद्धांत) में आंतरिक मूल्यांकन के लिए सामूहिक परियोजना शुरू की जा रही है।
7. सामूहिक परियोजना में विद्यार्थियों को समूहों में बांट कर विषय दिये जायेंगे। समूह के सदस्य आपसी विचार विमर्श के आधार पर अपना प्रतिवेदन तैयार करेंगे, और प्रतिवेदन प्रस्तुत करेंगे। विद्यार्थियों को प्रतिवेदन तैयार करने में उनके योगदान और उसके प्रस्तुतिकरण के आधार पर अंक दिये जायेंगे। सम्बन्धित विभागाध्यक्ष स्वविवेक से समूह के सदस्यों की संख्या निर्धारित करेंगे, परंतु यथासम्भव एक समूह में छः से अधिक सदस्य न हों।

Note:

1. As per the plan given above, there will be four semesters of four papers each for the Regular students. Theoretical examination carrying 80 marks in each paper shall be held. Simultaneously, 20 marks shall be assigned for internal assessment.
2. Apart from the above, an extra examination of 100 marks shall be taken in the fourth semester. Of this, 50 marks shall be assigned to project work and other 50 for *viva voce* by external examiner.

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3. Any topic can be selected for the project from the syllabus provided for all the four semesters.
4. Thus the whole course shall comprise of 1700 marks.
5. For Internal Assessment, two examinations shall be held at the college level, and higher marks of the two shall be sent to the University.
6. In order to promote cooperation and importance of collective study among students, Group Project is being introduced for Internal Assessment in the Second Paper of First Semester (Indian Government and Politics); and the First Paper of Third Semester (Theories of International Politics).
7. For Group Project, students shall be divided into groups and a topic be assigned to them. The group members will prepare one report on the basis of mutual discussion and research, and will present the report. Marks shall be assigned on the basis of contribution of each student in preparing the project and their presentation. The group size will be decided by the Head of the Departments concerned, but as far as practicable, not more than six students should comprise a group.

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R. Ganesh
25.07.2022

BIP
25.7.2022

एम.ए. (राजनीति विज्ञान) सेमेस्टर – 1
M.A. (Political Science) Semester – 1

प्रथम प्रश्न पत्र – भारतीय राजनीतिक चिंतन

First Paper – Indian Political Thought

- इकाई – 1 महाभारत के शांतिपर्व में राजनीतिक विचार, मनु, कौटिल्य
Unit – 1 Political Philosophy in the Shanti Parva of the Mahabharat, Manu, Kautilya
- इकाई – 2 अरविंदो घोष, स्वामी विवेकानंद एवं महात्मा गाँधी के विचार
Unit – 2 Philosophies of Aurobindo Ghosh, Swami Vivekanand, and Mahatma Gandhi
- इकाई – 3 अम्बेडकर, जयप्रकाश नारायण, भगत सिंह, सुभाष चंद्र बोस के विचार
Unit – 3 Philosophies of Ambedkar, Jay Prakash Narayan, Bhagat Singh, Subhash Chandra Bose
- इकाई – 4 एम.एन. राय, लोहिया, सावरकर व दीनदयाल उपाध्याय के विचार
Unit – 4 Philosophies of M.N. Roy, Lohia, Sawarkar, Deendayal Upadhyay

द्वितीय प्रश्न पत्र – भारतीय शासन एवं राजनीति

Second Paper – Indian Government and Politics

- इकाई – 1 भारतीय संविधान के वैचारिक आधार, प्रस्तावना, संविधान अपने गतिज रूप में, सामाजिक और आर्थिक परिवर्तन के साधन के रूप में
Ideological bases of Indian Constitution, Preamble, Constitution in its dynamic form, Constitution as tool of socio-economic change
- इकाई – 2 महत्वपूर्ण संवैधानिक संशोधन, आपातकालीन प्रावधान, अनु. 356 के संदर्भ में राज्यपाल, बोम्मई निर्णय, केन्द्र-राज्य सम्बन्ध (जीएसटी सहित), अनुसूची V और VI
Important Constitutional Amendments, Emergency Provisions, Governor in context of Art. 356, The Bommai decision, Union-State relation (including GST), Schedules V and VI
- इकाई – 3 प्रधानमंत्री - संघीय सत्ता का केन्द्र बिंदु (राष्ट्रपति, मंत्री परिषद्, और राज्यों पर प्रभाव के संदर्भ में), राष्ट्रीय राजनीति में प्रधानमंत्री
संसद
न्यायपालिका, न्यायिक सुधार, न्यायिक सक्रियता, प्रतिबद्ध न्यायपालिका
भारत में निर्वाचन, भारत निर्वाचन आयोग, चुनाव सुधार
Prime Minister – The Centre of Power in the Union (In reference to influences on the President, the Council of Ministers and the States); Prime Minister in National Politics
Parliament.
Judiciary: Judicial Reforms, Judicial Activism, Committed Judiciary.
Elections in India, The Election Commission of India, Electoral Reforms.

  
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इकाई – 4 भारतीय लोकतंत्र की चुनौतियां – धनबल, अपराधीकरण, गठबंधनवाद, नैतिकता और दलबदल, असहिष्णुता, भ्रष्टाचार, धार्मिक संकीर्णता
Challenges before Indian Democracy – Money Power, Criminalisation of Politics, Political Alliance, Morality and Defection, Intolerance, Corruption, Religious Parochialism.

तृतीय प्रश्न पत्र – तुलनात्मक राजनीति एवं राजनीतिक विश्लेषण

Third Paper – Comparative Politics and Political Analysis

- इकाई – 1 तुलनात्मक राजनीति: अर्थ, प्रकृति, क्षेत्र एवं समस्याएं
राजनीतिक व्यवस्था का महत्व, संविधानवाद
Comparative Politics: Meaning, Nature, Scope and Problem
Importance of Political System, Constitutionalism
- इकाई – 2 परम्परागत एवं आधुनिक राजनीतिक अध्ययन की विशेषतायें, व्यवहारवाद, उत्तर-व्यवहारवाद
Characteristics of Traditional and Modern Political Studies, Behaviouralism, Post-behaviouralism.
- इकाई – 3 राजनीतिक व्यवस्था के उपागम – डेविड ईस्टन का व्यवस्था सिद्धांत, आमण्ड और पॉवेल का संरचनात्मक-प्रकार्यात्मक उपागम
Approaches to the Study of Political System: Systems Theory of David Easton, Structural-Functional Approach of Almond and Powell
- इकाई – 4 राजनीतिक संस्कृति, राजनीतिक समाजीकरण, राजनीतिक संचार
निर्भरता: विकास और अल्पविकास
Political Culture, Political Socialisation, Political Communication
Dependency: Development and Under-development

चतुर्थ प्रश्न पत्र – अंतर्राष्ट्रीय संगठन

Fourth Paper – International Organisations

- इकाई – 1 अंतर्राष्ट्रीय संगठन की प्रकृति एवं विकास। अंतर्राष्ट्रीय संगठन राष्ट्र राज्य एवं अंतर्राष्ट्रीय व्यवस्था का समन्वय
राष्ट्र संघ
Nature and Evolution of International Organisations. International Organisations as Coordination of Nation, State and International Systems.
League of Nations
- इकाई – 2 संयुक्त राष्ट्र संघ: पृष्ठभूमि, विभिन्न अंग – संरचना, कार्य और कार्यप्रणाली, मूल्यांकन
- इकाई – 3 अंतर्राष्ट्रीय संगठनों के प्रकार: सैन्य (नाटो आदि), आर्थिक-वाणिज्यिक (सार्क, ईयू, आसियान, ब्रिक्स, ओपेक आदि)

duu R. Rajan 25/7/22

Types of International Organisations: Military (NATO etc), Trade & Commerce (SAARC, EU, ASEAN, BRICS, OPEC etc)

इकाई – 4 अंतर्राष्ट्रीय संगठनों के प्रकार: गैरराज्यीय (यूनेस्को, अंतर्राष्ट्रीय न्यायालय)
आर्थिक-मौद्रिक – अंतर्राष्ट्रीय मुद्रा कोष, एशियाई विकास बैंक, विश्व बैंक
अन्य – क्वाड, एससीओ आदि

Types of International Organisations: Non-government (UNESCO, International Court of Justice)

Financial-Monetary – International Monetary Fund, Asian Development Bank, World Bank

Others – QUAD, SCO etc

एम.ए. (राजनीति विज्ञान) सेमेस्टर – 2

M.A. (Political Science) Semester – 2

प्रथम प्रश्न पत्र – पाश्चात्य राजनीतिक चिंतन

First Paper – Western Political Thought

इकाई – 1 सुकरात, प्लेटो, अरस्तु

Socrates, Plato, Aristotle

इकाई – 2 हॉब्स, लॉक, रूसो, मैकियावेली

Hobbes, Locke, Rousseau, Machiavelli

इकाई – 3 बेथम, जे.एस. मिल, ग्रीन

Bentham, J.S. Mill, Green

इकाई – 4 मार्क्स, माओ, लेनिन, रॉल्स

Marx, Mao, Lenin, Rawls

द्वितीय प्रश्न पत्र – भारत में राज्यों की राजनीति

Second Paper – State Politics in India

इकाई – 1 राज्य की कार्यपालिका: राज्यपाल, मुख्यमंत्री एवं मंत्री परिषद्

State Executive: Governor, Chief Minister and Council of Ministers

इकाई – 2 राज्य का व्यवस्थापिका: विधान सभा एवं विधान परिषद्

राज्य की न्यायपालिका: उच्च न्यायालय एवं अधीनस्थ न्यायालय

State Legislature: Legislative Assembly and Legislative Council

State Judiciary: High Courts and Subordinate Courts

इकाई – 3 राज्य स्वायत्तता की मांग, नये राज्यों के गठन का मांग, राज्यों में पृथकतावादी आंदोलन,
अंतर्राष्ट्रीय नदी जल विवाद
भारत में राज्य राजनीति को प्रभावित करने वाले कारक

dual

R. Ganesh

25-7-2022

Demands for State Autonomy, Demands for Creation of New States, Separatist Movements in states, Inter-state River Water Disputes
Factors Influencing State Politics in India

- इकाई - 4 राज्य योजना आयोग, राज्य वित्त आयोग, राज्य निर्वाचन आयोग, भारत में राज्य राजनीति की प्रमुख प्रवृत्तियां
State Planning Commission, State Finance Commission, State Election Commission, Major Trends in State Politics of India

तृतीय प्रश्न पत्र - विकासशील देशों की तुलनात्मक राजनीति एवं विश्लेषण
Third Paper - Comparative Politics of Developing Countries and Analysis

- इकाई - 1 सरकार का वर्गीकरण - एकात्मक और संघात्मक, अध्यक्षीय और संसदीय, संघवाद
Classification of Governments: Unitary and Federal, Presidential and Parliamentary. Federalism.
- इकाई - 2 राजनीतिक संस्थायें - व्यवस्थापिका, कार्यपालिका एवं न्यायपालिका। शक्तियों के पृथक्करण का सिद्धांत।
Political Institutions - Legislature, Executive, and Judiciary. Theory of Separation of Powers.
- इकाई - 3 राजनीतिक दल एवं दबाव समूह, नौकरशाही - संरचना, कार्य एवं भूमिका, गठबंधन सरकार
Political Parties and Pressure Groups. Bureaucracy - Structure, Function and Role. Coalition Government.
- इकाई - 4 राजनीतिक विकास, राजनीतिक अभिजन, राजनीतिक समाजीकरण, राजनीतिक आधुनिकीकरण
Political Development, Political Elite, Political Socialisation, Political Modernisation

चतुर्थ प्रश्न पत्र - भारत की विदेश नीति
Fourth Paper - Foreign Policy of India

- इकाई - 1 विदेश नीति: अर्थ, प्रकृति एवं निर्धारक तत्व
भारतीय विदेश नीति के निर्धारक तत्व: आंतरिक एवं बाह्य
भारतीय विदेश नीति के सिद्धांत और उद्देश्य
Foreign Policy: Meaning, Nature and Determinants
Determinants of India's Foreign Policy: Internal and External
Principles and Objectives of India's Foreign Policy
- इकाई - 2 भारत और अमेरिका, भारत और रूस
India and the USA, India and Russia
- इकाई - 3 भारत और पाकिस्तान, भारत और चीन, भारत और श्रीलंका
India and Pakistan, India and China, India and Sri Lanka

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- इकाई – 4 भारत और संयुक्त राष्ट्र संघ, भारत की भूमिका – सुरक्षा सम्बन्धी सरोकार, समझौते और मध्यस्थ की भूमिका
India and the UNO, India's Role – Security Concerns, Pacts and Mediator Role.

एम.ए. (राजनीति विज्ञान) सेमेस्टर – 3

M.A. (Political Science) Semester – 3

प्रथम प्रश्न पत्र – अंतर्राष्ट्रीय राजनीति के सिद्धांत

First Paper – Theories of International Politics

- इकाई – 1 अंतर्राष्ट्रीय राजनीति का विषय के रूप में विकास, प्रकृति और क्षेत्र
अध्ययन पद्धति – परम्परागत और वैज्ञानिक
International Politics as a Discipline: Evolution, Nature and Scope
Approaches to Study: Traditional and Scientific
- इकाई – 2 अंतर्राष्ट्रीय राजनीति के सिद्धांत: यथार्थवाद, आदर्शवाद, साम्यावस्था, निर्णय-निर्माण, खेल सिद्धांत, संचार एवं व्यवस्था सिद्धांत
Theories of International Politics: Realism, Idealism, Equilibrium, Decision Making, Games Theory, Communication and Systems Theory.
- इकाई – 3 शक्ति की अवधारणा, राष्ट्रीय शक्ति के तत्व एवं सीमायें, शक्ति संतुलन, सामूहिक सुरक्षा, राष्ट्रहित और अंतर्राष्ट्रीय विचारधारा एवं नैतिकता
Concept of Power, Elements of National Power and its Limitations, Balance of Power, Collective Security, National Interest and International Ideology and Moral.
- इकाई – 4 निःशस्त्रीकरण, परमाणु अप्रसार – सीटीबीटी, एन.पी.टी.
उत्तर-दक्षिण संवाद, दक्षिण-दक्षिण सहयोग, विश्व व्यापार संघटन
Disarmament, Nuclear Non-proliferation – CTBT, NPT
North-South Dialogue, South-South Cooperation, World Trade Organisation.

द्वितीय प्रश्न पत्र – लोक प्रशासन भाग – 1

Second Paper – Public Administration Part – 1

- इकाई – 1 लोक प्रशासन: परिभाषा, प्रकृति, क्षेत्र, निजी प्रशासन से तुलना
अध्ययन के उपागम – व्यावहारवादी, तुलनात्मक लोक प्रशासन
सुशासन, ई-गवर्नेन्स
विकास प्रशासन एवं नवीन लोक प्रशासन
Public Administration: Definition, Nature and Scope, Comparison with Private Administration
Approaches to Study – Behaviouralist, Comparative Public Administration
Good Governance, E-governance
Development Administration, New Public Administration



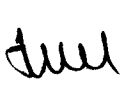
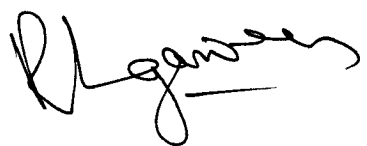

- इकाई – 2 संगठन के सिद्धांत: नियंत्रण का क्षेत्र, आदेश की एकता, पदसोपान, प्रत्यायोजन, समन्वय।
केन्द्रीयकरण, विकेन्द्रीकरण।
मुख्य कार्यपालिका – प्रकार एवं भूमिका, सूत्र, स्टाफ एवं सहायक अभिकरण।
विभागीय संगठन - लोक निगम, स्वतंत्र नियामकीय आयोग।
Principles of Organisation: Span of Control, Unity of Command, Hierarchy, Delegation, Coordination
Centralisation and Decentralisation
Chief Executive – Types and Roles. Line, Staff and Auxiliary Agencies.
Departmental Organisations – Public Corporations, Independent Regulatory Commissions.
- इकाई – 3 कार्मिक प्रशासन – भर्ती, प्रशिक्षण, पदवर्गीकरण, पदोन्नति, सेवानिवृत्ति, संघ लोक सेवा आयोग।
नौकरशाही।
Personnel Administration – Recruitment, Training, Position Classification, Promotion, Superannuation, Union Public Service Commission.
Bureaucracy
- इकाई – 4 विकास प्रशासन: विकास प्रशासन की अवधारणा और क्षेत्र। रिग्स का विकास मॉडल
राजनैतिक विकास एवं सामाजिक परिवर्तन, पर्यावरण एवं विकास
Development Administration: Concept Scope. Riggs' Model of Development.
Political Development and Social Change, Environment and Development.

तृतीय प्रश्न पत्र – शोध प्रविधि भाग – 1

Third Paper – Research Methodology Part – 1

- इकाई – 1 सामाजिक शोध की प्रकृति, महत्व एवं उपयोग। शुद्ध एवं व्यावहारिक शोध, शोध समस्या की पहचान, शोध अभिकल्प, उपकल्पना का निर्माण एवं परीक्षण।
Nature, Importance and Uses of Social Research. Pure and Applied Research.
Identifying Research Problem, Research Design, Formulation and Testing of Hypotheses.
- इकाई – 2 सामाजिक सर्वेक्षण: उद्देश्य, महत्व, प्रक्रिया, तथ्य संकलन की तकनीकें, तथ्यों के प्राथमिक एवं द्वितीयक स्रोत
Social Survey: Objectives, Importance, Process, Techniques of Data Collection, Primary and Secondary Sources of Data.
- इकाई – 3 अवलोकन पद्धति, साक्षात्कार पद्धति, प्रश्नावली और अनुसूची
Observational Method, Interview Method, Questionnaire and Schedule
- इकाई – 4 अध्ययन के विभिन्न प्रकार: पैनल अध्ययन, केस अध्ययन, क्षेत्रीय अध्ययन
Different types of Study: Panel Study, Case Study, Field Study.

चतुर्थ प्रश्न पत्र – छत्तीसगढ़ का शासन एवं राजनीति

Fourth Paper – Government and Politics of Chhattisgarh

- इकाई – 1 राज्यों का पुनर्गठन (2000) तथा छत्तीसगढ़ का निर्माण, छत्तीसगढ़ राज्य निर्माण हेतु आन्दोलन, छत्तीसगढ़ की राजनीति के निर्धारक तत्व एवं विशेषताएं
Reorganisation of States (2000) and Formation of Chhattisgarh, Movements for the Formation of Chhattisgarh as a State, Determinants and Characteristics of Politics in Chhattisgarh
- इकाई – 2 छत्तीसगढ़ में स्थानीय स्वशासन एवं पंचायती राज, पेसा
छत्तीसगढ़ में जिला प्रशासन एवं जिलाधीश की भूमिका
Local Self-government and Panchayati Raj in Chhattisgarh, PESA
District Administration in Chhattisgarh, Role of District Collectors
- इकाई – 3 छत्तीसगढ़ में लोकसभा एवं विधानसभा चुनाव, मतदान व्यवहार
Lok Sabha and Assembly Elections in Chhattisgarh. Voting Behaviour.
- इकाई – 4 छत्तीसगढ़ की राजनीति की उभरती प्रवृत्ति: जनजातीय राजनीति, किसान आंदोलन, नक्सलवाद – समस्या व समाधान के उपाय
छत्तीसगढ़ में विकास की राजनीति एवं विकास की योजनाएं
Emerging Trends in Chhattisgarh Politics: Politics of the Tribals, Peasant Movements, Naxalism: Problem and Possible Solutions
Development Politics in Chhattisgarh, Development Schemes

एम.ए. (राजनीति विज्ञान) सेमेस्टर – 4

M.A. (Political Science) Semester – 4

प्रथम प्रश्न पत्र – अंतर्राष्ट्रीय राजनीति के समकालीन मुद्दे

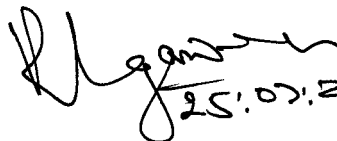
First Paper – Contemporary Issues of International Politics

- इकाई – 1 अंतर्राष्ट्रीय राजनीति में असंलग्नता – आधार, भूमिका, महत्व एवं प्रसंगिकता
Non-alignment in International Politics – Rationale, Role, Importance and Relevance
- इकाई – 2 शीतयुद्ध एवं शीतयुद्ध की समाप्ति – कारण एवं परिणाम, नई विश्व व्यवस्था
Cold War and End of Cold War – Causes and Outcome. New World Order.
- इकाई – 3 उत्तर शीतयुद्धकालीन महत्वपूर्ण मुद्दे – वैश्वीकरण, मानवाधिकार, पर्यावरण, आतंकवाद
Important Issues in the Post-Cold War Era – Globalisation, Human Rights, Environment, Terrorism
- इकाई – 4 अंतर्राष्ट्रीय सम्बन्धों का राजनीतिक अर्थशास्त्र, नव-उपनिवेशवाद और निर्भरता
Political Economy of International Relations, Neo-colonialism and Dependency.

द्वितीय प्रश्न पत्र – लोक प्रशासन भाग – 2

Second Paper – Public Administration Part – 2

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- इकाई – 1 लोक नीति: नीति निर्माण की प्रक्रिया, नीति निष्पादन एवं विश्लेषण, नीति निर्माण के नवीन उपागम
संगठन और पद्धति (O&M) – अर्थ, प्रकृति, O&M के सिद्धांत
Public Policy: Process of Policy Formulation, Policy Execution and Analysis. New Approaches to Policy Making.
Organisation and Method – Meaning, Nature, Theories of O&M.
- इकाई – 2 वित्तीय प्रशासन: अर्थ, प्रकृति, विशेषताएं। बजट – सिद्धांत और महत्व, भारत में बजट निर्माण की प्रक्रिया।
कार्यपालिका, व्यवस्थापिका, न्यायपालिका एवं जनसमूह का प्रशासन पर नियंत्रण
Financial Administration: Meaning, Nature and Features. Budget – Principles and Importance. Budgetary Process in India.
Executive, Legislative, Judicial and Popular Controls on administration.
- इकाई – 3 प्रशासनिक व्यवहार – नेतृत्व, निर्णय, संचार, जवाबदेही
Administrative Behaviour – Leadership, Decision Making, Communication, Answerability
- इकाई – 4 लोक प्रशासन में भ्रष्टाचार। ओम्बुड्समैन, लोकपाल और लोकायुक्त।
स्थानीय स्वशासी संस्थाओं की भूमिका, लोक सम्पर्क।
Corruption in Public Administration. Ombudsman, Lokpal and Lokayukta.
Role of Local Autonomous Institutions, Public Relations.

तृतीय प्रश्न पत्र – शोध प्रविधि भाग - 2

Third Paper – Research Methodology Part – 2

- इकाई – 1 निदर्शन, अनुमापन प्रविधियां, प्रक्षेपी प्रविधियां
Sampling, Scaling Techniques, Projection Techniques
- इकाई – 2 अनुसंधान दल, अनुसंधान की समस्या, तथ्यों का वर्गीकरण एवं सारणीयन, संकेतीकरण
Research Team, Problems of Research, Classification and Tabulation of Data, Coding
- इकाई – 3 तथ्यों का विश्लेषण एवं व्याख्या, प्रतिवेदन लेखन, तथ्यों का चित्रमय प्रदर्शन
Analysis and Interpretation of Data, Report Writing, Diagrammatic Presentation of Data.
- इकाई – 4 सामाजिक अनुसंधान में सांख्यिकी को प्रयोग एवं सीमाएं। मीन, मोड, मीडियन। कम्प्यूटर का उपयोग।
Uses and Limitations of Statistics in Social Research. Mean, Mode, Median. Use of Computer.

चतुर्थ प्रश्न पत्र – छत्तीसगढ़ का राजनैतिक इतिहास

Fourth Paper – Political History of Chhattisgarh

- इकाई – 1 छत्तीसगढ़ की ऐतिहासिक, भौगोलिक एवं सांस्कृतिक पृष्ठभूमि

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Backgrounds of Chhattisgarh – Historical, Geographical and Cultural

- इकाई – 2 छत्तीसगढ़ में ब्रिटिश प्रशासन (1854 से 1947)
स्वतंत्र भारत में छत्तीसगढ़ (1947 से 2000)
British Administration in Chhattisgarh (1854 to 1947)
Chhattisgarh in Independent India (1947 to 2000)
- इकाई – 3 राष्ट्रीय आंदोलन में छत्तीसगढ़ का योगदान: अहिंसक एवं क्रांतिकारी संघर्ष
Chhattisgarh's Contribution in Indian National Movement: Nonviolent and
Revolutionary Struggle
- इकाई – 4 छत्तीसगढ़ के राजनीतिक चिंतक: पं. रविशंकर शुक्ल, ठाकुर प्यारेलाल सिंह, डॉ. खूबचंद
बघेल
छत्तीसगढ़ के सामाजिक चिंतक: गुरु घासीदास, पं. सुंदरलाल शर्मा, स्वामी आत्मानंद, मिनी
माता
Political Thinkers of Chhattisgarh: Pt. Ravishankar Shukl, Thakur Pyarelal Singh,
Dr. Khoobchand Baghel
Social Thinkers of Chhattisgarh: Guru Ghasidas, Pt. Sunderlal Sharma, Swami
Atmanand, Mini Mata

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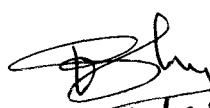
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)


POST GRADUATE DIPLOMA IN COMPUTER APPLICATION
[DURATION – ONE YEAR – FULL TIME]


SCHEME OF TEACHING AND EXAMINATIONS
P.G.D.C.A. (Post Graduate Diploma in Computer Applications)

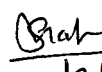
FIRST SEMESTER


Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
		L	T	P	Max. Marks				Min. Marks			
					Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA101	Fundamentals of Computers	3	2	–	80	20	–	100	20	13	–	33
PGDCA102	Office Automation	3	2	–	80	20	–	100	20	13	–	33
PGDCA103	Programming in C	3	2	–	80	20	–	100	20	13	–	33
PGDCA104	Practical based on PGDCA-102	–	–	3x2	–	–	100	100	–	–	40	40
PGDCA105	Practical based on PGDCA-103	–	–	3x2	–	–	100	100	–	–	40	40
	TOTAL	9	6	12	240	60	200	500	60	39	80	179

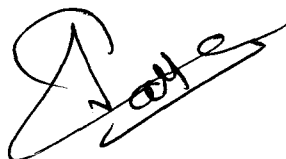

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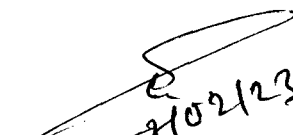

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Date


07/02/23


07-02-2023

SCHEME OF TEACHING AND EXAMINATION
P.G.D.C.A. (Post Graduate Diploma in Computer Applications)

SECOND SEMESTER

Subject Code	SUBJECTS	Teaching Load Per Week			Examination Marks							
		L	T	P	Max. Marks				Min. Marks			
					Th	Ses	Pr	Total	Th	Ses	Pr	Total
PGDCA106	Programming in VB .Net	3	2	—	80	20	—	100	20	13	—	33
PGDCA107	Database Management Systems	3	2	—	80	20	—	100	20	13	—	33
PGDCA108	Internet and E-Commerce	3	2	—	80	20	—	100	20	13	—	33
PGDCA109	Practical based on PGDCA106	—	—	3x2	—	—	100	100	—	—	40	40
PGDCA110	Practical based on PGDCA107 and PGDCA-108	—	—	3x2	—	—	100	100	—	—	40	40
	TOTAL	9	6	12	240	60	200	500	60	39	80	179

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07-02-2023

PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)

**POST GRADUATE DIPLOMA IN COMPUTER APPLICATION
[DURATION – ONE YEAR – FULL TIME]**

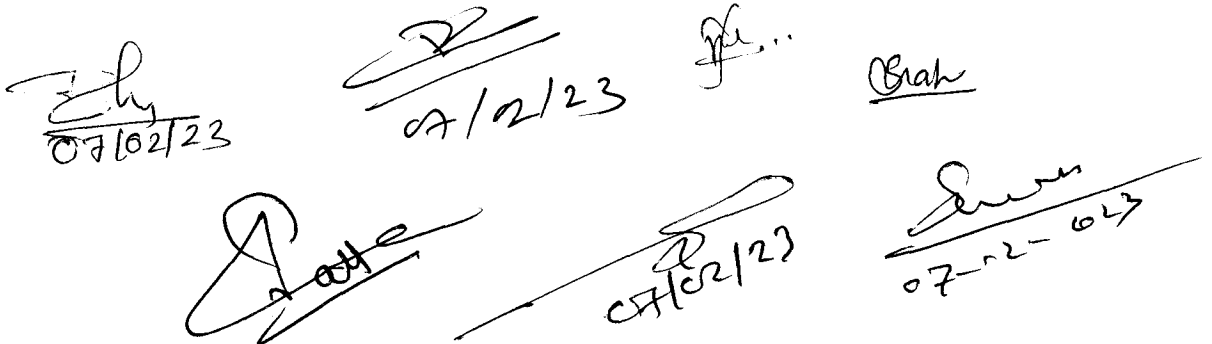
The duration of the course shall be one year consisting of two semesters. There shall be three theories and two practical courses in the each semester.

FIRST SEMESTER

- PGDCA-101 : Fundamentals of Computers.**
- PGDCA-102 : Office Automation.**
- PGDCA-103 : Programming in C**
- PGDCA-104 : Practical based on PGDCA-102.**
- PGDCA-105 : Practical based on PGDCA-103.**

Second Semester

- PGDCA-106 : Programming in VB .Net**
- PGDCA-107 : Database Management Systems.**
- PGDCA-108 : Internet and E- Commerce.**
- PGDCA-109 : Practical based on PGDCA106**
- PGDCA-110 : Practical based on PGDCA107 and PGDCA-108**

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FUNDAMENTALS OF COMPUTERS

Subject Code - PGDCA-101

Course Outcomes

- Bridge the fundamental concepts of computers with the present level of knowledge of the students.
- Student will come to know about different input and output devices.
- Understand the basics of digital computer along with different storage unit.
- Familiarize operating systems, programming languages, peripheral devices, networking, multimedia and internet
- Understand different types of software .

Syllabus

UNIT - I Introduction to Computers

Computer system: characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generation of Computers.

UNIT - II Computer Peripherals

Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry – Card Readers, Scanning Devices – O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices – Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche (COM) systems, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

UNIT - III Basic Components & Storage

Central Processing Unit: The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). **Storage Devices:** Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods – Sequential, Direct & Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

UNIT - IV Computer Software & Languages


System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, Language Processors: Assembler, Interpreter, Compiler.

UNIT – V: Operating System and Linux

Introduction, Uses of OS, Functions of OS, Booting process, Types of Reboot, Booting from different OS, Types of OS, DOS, Windows, Linux Open source Software concept and evolution of Linux; Features of Multi-User Operating System; Structure of Linux OS; Security Features of Linux, File System, Directory Structure and related commands. Linux Editors & editor commands, Linux commands cd, md, rm, mv, cp, ls, cat, find, grep.

Books Recommended:

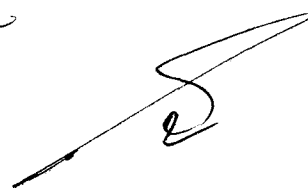
1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
3. Operating System Concepts, Silberchartz, Galvin and Gagne, Wiley India Edition
4. Unix Concepts and Applications, Sumitabha Das, McGraw hill


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OFFICE AUTOMATION

Subject Code - PGDCA-102

Course Outcomes

After completion of the course,

- Students would be able to documents, spreadsheets, make small Presentations and would be acquainted with internet.
- Student will come to know about database creation and about creation of journal, ledger, trial balance of transaction in tally software.
- This subject helps in understanding the basics of office automation task.

Syllabus

UNIT - I Using Office with MS-Word

Introduction to word processing software and its features, Creating new document, Saving documents, Opening and printing documents. **Home Tab:** Setting fonts, Paragraph settings, various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. **Insert Tab:** Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab:** Page setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelopes and Labels, Mail merge. **Review Tab:** Spelling and grammar check, New comment, Protect document, **View Tab:** Document views, Zoom, Window (New window, Split, Switch window).

UNIT – II Working with MS-Excel

Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. **Home Tab:** Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab:** Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). **Page Layout Tab :** Page setup options, Scale to fit(width, height, scale). **Formulas Tab :** Autosum (sum, average, min, max), logical(IF, and ,or ,not ,true, false), Math & trig (sin, cosine, tangent, ceil, floor, fact, mod, log), watch window. **Data Tab:** Get external data from MS Access, Sort and filter options , Data validation, Group and ungroup. **Review Tab:** Protect sheet, Protect workbook, Share workbook. **View Tab:** Page breaks, Page layout, Freezing panes, Split and hide.

UNIT – III Working with MS-PowerPoint


Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab:** New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. **Insert Tab:** Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box , word art, object. **Design Tab:** Page setup options, slide orientation, applying various themes, selecting background style and formatting it. **Animations Tab:** Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show &view Tab:** Start slid show options, setup options. **View tab:** Presentation views, colours and window option.

UNIT – IV Working with MS-Access

Front end and back end of application, Introduction to DBMS, Features of DBMS, Creating blank databases, saving it in accdb format. Defining data types in ms access. **Home Tab:** Datasheet view, design view, pivot chart view, pivot table view, sort and filter options. **Create Tab:** Creating tables, Creating reports, Query wizard. **External Data Tab:** importing data from access and excel sheet, exporting data to excel and ms word. **Datasheet Tab:** Relationships, Fields and columns options, Data type and formatting options.



UNIT – V Working with MS-Publisher

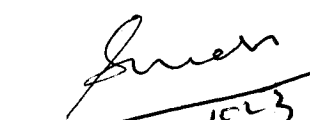
Getting Started with Microsoft Publisher : Navigate the Interface , Customize the Publisher Interface, Create a Publication. Adding Content to a Publication: Add Text to a Publication, Add Pages and Picture Placeholders, Control the Display of Content in Text Boxes, Apply Building Blocks to a Publication. Formatting Text & Paragraphs in a Publication: Format Text, Format Paragraphs, Apply Schemes. Managing Text in a Publication: Edit Text in a Publication, Work with Tables, Insert Symbols and Special Characters. Working with Graphics in a Publication: Insert Graphics in a Publication, Customize the Appearance of Pictures. Preparing a Publication for Sharing and Printing: Check the Design of a Publication, Save a Publication in Different Formats, Print a Publication, Share a Publication


07/02/23


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PROGRAMMING IN C

Subject Code - PGDCA-103

Course Outcomes

After the course the students are expected to be able to (this is what the exams will test) :

- Identify situations where computational methods and computers would be useful.
- Given a computational problem, identify and abstract the programming task involved.
- Approach the programming tasks using techniques learned and write pseudo-code.
- Choose the right data representation formats based on the requirements of the problem.
- Use the comparisons and limitations of the various programming constructs and choose the right one for the task in hand.
- Write the program on a computer, edit, compile, debug, correct, recompile and run it.
- Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

Syllabus

UNIT – I: Introduction:

Introduction Character set, Identifiers and Keywords, Variables, Displaying variables, Reading Variables, Character and Character String, Qualifiers, Type define Statements, Value initialized variables, Constants, Constant Qualifier, Operators and Expressions, Operator Precedence and Associativity, Basic input output: Single Character I/O, General Outputs, Types of Characters in format string, Scanf with specifiers, Searchset Arrangements and Suppression Character, Format Specifiers for scanf.

UNIT – II: Control Structures & Functions:

Control Structure: if-statement, if-else statement, multiple decisions, nested if statements, switch statement, for-loop, while-loop, do-while loop, break statement, continue statement, goto statement.

Functions: The main function, functions accepting more than one parameter, User defined and library functions, Concept associatively with functions, function parameter, Return value, recursion comparisons of iteration and recursion variable length argument list.

UNIT – III: Arrays & Pointers:

Scope and Extent, Arrays, Strings, Multidimensional Arrays, Strings, Array of Strings, Function in String, Pointers: Definition and use of pointer, address operator, pointer variable, referencing pointer, void pointers, pointer arithmetic, pointer to pointer, pointer and arrays, passing arrays to functions, pointer and functions, accessing array inside functions, pointers and two dimensional arrays, array of pointers, pointers constants, pointer and strings.

UNIT – IV: Structure and Union:

Declaring and using Structure, Structure initialization, Structure within Structure, Operations on Structures, Array of Structure, Array within Structure, Creating user defined data type, pointer to Structure and function. Union, difference between Union and Structure, Operations on Union, Scope of Union.

UNIT – V: Dynamic Memory Allocation and File Handling:

Dynamic Memory Allocation: Library functions for Dynamic memory allocation, Dynamic Multi-Dimensional arrays.

File Handling: - Introduction, Structure, File handling, Functions file types, Un-buffered and buffered file, Error handling.

Recommended Books:

1. Let Us C - Yashwant Kanetkar.
2. Programming in C - E. Balagurusamy

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Dr. ...

PGDCA-104: Practical based on PGDCA-102

1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows:

Program 1 (Word)	-	15
Program 2 (Excel)	-	15
Program 3 (Access)	-	15
Program 4 (Powerpoint/Publisher)	-	15
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
Total	-	100

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

List of Practical

MS- WORD

File New, Open, Save, Cut, Copy, Paste, Drag Drop, Bullets and Numbering, Undo, Redo, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.

1. Open a document. Type the following text and perform the tasks as instructed below:-

Working with Word Processor

As already mentioned, a word processor is a package that processes textual matter and creates organized and flawless documents. In addition to it a word processor not only remove all the limitations of typewriter but also offers various useful features that cannot be even dreamt of with typewriter.

Also if same textual matter is to be reproduced with minor changes, retyping the only option in typewriters.

The word processing (and word processor) originated way back in 1964 when special typewriters. Magnetic Tape Selectric typewriters (MIST) were launched by IBM (International Business Machines).

(i) Insert the following text after the first paragraph

The main components of a word processing system are listed below:

- a. Computer
- b. Printer
- c. A word processing software

(ii) Save the document as Word1.doc

(iii) Move the second paragraph to the end of the document. Using darg & drop.

(iv) Move the second paragraph in the end of the document using cut, paste operations.

(v) Undo the above actions.

(vi) Now use Redo actions

(vii) Go to the End of the document (in one step)

(viii) Go to the Beginning of document (in one step)

(ix) Insert page break before the third paragraph.

(x) Search the word "computer: in your document with options Match case, find whole words only.

(xi) Replace the word "typewriters" with "word processor"

(xii) Undo the above action

(xiii) Remove All page breaks from your document

(xiv) Change the magnification of your document to different percentages using zoom features.

(xv) Format the above written paragraphs and give the options as follows:

- Alignment justified
- Indentation: left 0.2 right:0.2
- Spacing: before 6 pt. after:6 pt.
- Special: first line by :0.4"
- Line spacing 1.5 lines.

(xvi) Set the default tab stop to 0.3"

(xvii) Set the margins to 1.25

(xviii) Format the page using

- a. Left margin:0.5, right margin: 0.5
- b. Top margin:1.5, bottom margin:0.5

- c. Gutter Margin: 1 indentation: left 0.2 right:0.2
 d. Header Margin:0.5
- (xix) Format the each occurrence of group of words 'Word Processor' as bold, italic, under line and small caps using find and replace with formatting options.
- (xx) Align the heading to Center and make it bold, underlined and italicized.

File New, Open, Save, Find, Replace, Paragraph Formatting, Character Formatting and Page Formatting.

2. Type the text as show below and perform the tasks as directed:

Computers

COMPUTER is an electronic device that processes data and gives meaningful information. Computers are being used in almost all the fields today

EXPERT SYSTEMS

HUMAN THINKING AND ARTIFICIAL INTELLIGENCE

Can computer think?

AI at work Today: Natural Language programs and Expert Systems.

THE IMPACT OF COMPUTERS ON PEOPLE

The Positive Impact

The Potential Dangers

THE IMPACT OF COMPUTERS ON ORGANIZATIONS

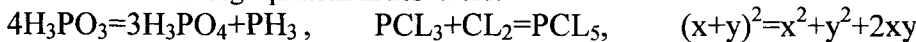
The information Processing Industry

The Positive impact on Using Organizations

The Potential Dangers for Using Organizations

- Search for the word 'Computer' in the entire document. All the occurrences of the given word are to be searched irrespective of the case.
- In the above question note that word also searches 'computerization and 'computerisations'. Now make sure that this time Word searches only for the word 'computer' in the entire document.
- Change the entire uppercase letter to lowercase.
- Give a heading to the above written text 'COMPUTERS IN TODAY'S WORLD'
- Centre aligns the Heading text Computer that appears in first line.
- Apply outside border to entire document.
- Apply outside border to the just heading text.
- Change page setup according to the following specifications
 Top margin: 1.5", bottom margin: 1.5"
 Gutter: 1", left margin: 1.5"
 Right margin: 1"
 Page width: 7.5", page height: 6.5 "
 Orientation: portrait
- Give a header 'Creations' and footer 'The school of computing'. The footer should also consist of page no's.
- Give appropriate commands for giving different header and footers for first page and odd & even pages.
- Save and close the document.

3. Write the following equations in MS-Word:



4. Write the following equations in MS-Word:



5. Write the following in MS-Word:

- Preheat the oven to 220°C.
- Copyright ©
- Registered ®
- Trademark ™

6. Create the following table in MS-Word:

Name		Rahul	
Roll No.		101	
Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70

[Handwritten signature]
 07-12-2023

7. Create a document in MS-Word. Set the watermark as **Microsoft**. Also write the following text as formatted below:

measuring programming progress by lines of code is like measuring aircraft building progress by weight.

[Handwritten signatures and dates: 2/10/23, 2/10/23, 2/10/23, 2/10/23]

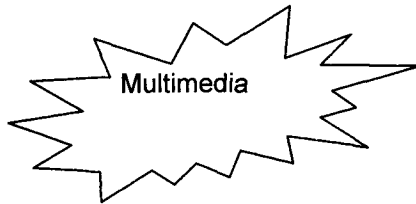
7. Create a document in MS-Word. Set the watermark as **Microsoft**. Also write the following text as formatted below:

measuring programming progress by lines of code is like measuring aircraft building progress by weight.
 --Bill Gates

8. Create the following:



9. Create the following:



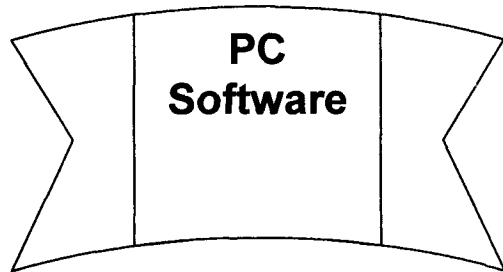
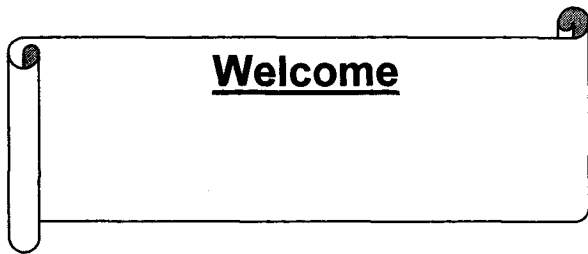
10. Create the following table in MS-Word:

Admission 2011-2012					
Course	OC	OB	MBC	SC/ST	Total
Computer Science	9	18	5	5	37
Commerce	14	25	6	5	50
Mathematics	12	20	4	4	40

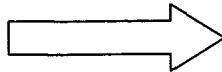
11. Create Table as shown

Car		Price
Maruti	Omni Van	200000
	Maruti 800	242000
Tata	Sumo	390000
	Sierra	447000

12. Insert the following in MS-Word.



13. Insert the following in MS-Word.



14. Write the following in MS-Word.

- This is sentencecase.
- this is lowercase.
- THIS IS UPPERCASE.
- This Is Capitalise Each Word.
- tHIS IS tOGGLE cASE.

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15. Create the following list in MS-Word:

1. Actors

1. Bruce Willis
2. Gerard Butler
3. Vin Diesel

2. Actress

1. Julia Roberts
2. Angelina Jolie
3. Kate Winslet
4. Cameron Diaz

16. Write the following in MS-Word:

1. Cricket Players

3. Batsman

1. Sachin Tendulkar
2. Rahul Dravid
3. Virendra Sehwag

4. Bowler

- a. Kumble
- b. Zaheer Khan
- c. Balaji

5. Spinner

- a) Harbhajan
- b) Kumble
- c) Kartik

17. Write a letter to send invitation to your friend inviting on your birthday.

18. Create labels for your friends' address.

The image shows four handwritten labels for address labels. The first label has the signature 'Shy' and the date '2/2/23'. The second label has the signature 'Prateek' and the name 'Prateek' written above it. The third label has the signature 'Saurabh' and the date '07-02-2023'.

MS – EXCEL

1. Create the following worksheet and save the worksheet as wages.xls

**PACE COMPUTERS (ATC CEDT), Govt. of India
Payroll for Employee (Temporary)**

Today's date :

Pay Rate :

Worker's Name	Hired On	days Worked	Gross Wages
Kushagra	3-Mar-07		
Pradeep	4-Mar-07		
Puneet	5-Mar-07		
Rajeev	6-Mar-07		

(I) Calculate days work and gross wages

2. Create the following worksheet and save the worksheet as wages.xls

Name	Basic (monthly) (Rs.)	HRA(% of basic)	DA (Rs.)	Total Salary (1997)	Bonus (Rs)	Total Salary (1998)	% (Increase)
Shirome	5000	10	450		1200		
Somya	9000	15	800		200		
Tanya	7000	12	900		1800		

- Calculate the total salary as sum of Basic salary, HRA ,DA, for each employee for 1997
- Calculate total salary for year 1998 as sum of salary of 1997 and bonus
- Calculate % increase in salary from 1997 to 1998

3. Create a worksheet as follows

**Pace computer (ATC CEDT) Govt. Of India
Payroll for employee (Permanent)**

Empcode	name	doj	salary	bonus	net salary
E001	Meenu	3-Mar-95	5000		
E002	Manoj	4-Mar-06	4000		
E003	Preeti	3-Mar-95	4800		
E004	Sumita	6-Mar-07	7500		

- allow bonus 8000 to employee having service >2 year other wise allow bonus 3000
- find net salary as sum of bonus and salary

4. create the worksheet as follows

Roll No	Name	English	Maths	Total	Average	Division
101	Kushagra	95	99			
102	Ajay	92	95			
103	Vijay	70	69			
				Class Average		

- find Total of two subject for each student
- find average of two subject for each student
- find class as average of average column
- find division of student as first, second, third, assume percentage of division of your own and maximum marks in each student as 100
- Apply conditional formatting for division column, first division should be in bold, second division should be in italic and third division should be underline

5. Create macro in excel to make selected cell, bold, italic outside bordered and center across select

6. create bar chart with given data

	2001	2002	2003
Tea	19	23	25
Coffee	22	24	22
Sugar	45	40	45

- (I) Provide heading production detail
- (II) Provide z axis title; lacks metric tone
- (III) Provide x axis title year

7. Create a table with column heading as shown below and using form perform data entry of records.

Zone	Department	Employee	Salary
West	Marketing	Mukesh	10500
East	Sales	Rahul	20000
South	Marketing	Suresh	5500
North	Marketing	Anju	25000
South	Sales	Neeraj	8000
North	Sales	Ajay	8000
South	Marketing	Mahesh	7500
West	Sales	Rajesh	4500

- i. Sort the data according to Zone then by Department
- ii. Use group and outline feature to show & hide details

8. Create a table with column heading as shown below and using form perform data entry of records.

Zone	Department	Employee	Salary
West	Marketing	Mukesh	10500
East	Sales	Rahul	20000
South	Marketing	Suresh	5500
North	Marketing	Anju	25000
South	Sales	Neeraj	8000
North	Sales	Ajay	8000
South	Marketing	Mahesh	7500
West	Sales	Rajesh	4500

- (I) Use filter command to show records having zone: West
- (II) Use filter command to show records having zone: West and salary less than 5000
- (III) Use filter command to show records having salary greater than 10000

9. Create pivot table using Data of exercise 8

10. Suppose a database exists in ms-access you are required to import the data. How will you?

11. Create a table using feature

Principle 1500
Rate 4%
Time 5

300	3	4	5
1%	45	60	75
2%	90	120	150
3%	135	180	225

12. Using goal seek feature find out the interest rate it must be to earn interest 500

Principle 1500
Rate 4%
Time 5
Interest 300

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MS-Access

Q.1. Create the following table in MS-Access:

Field Name	Data Type	Description
ContactID	AutoNumber	Primary Key
ContactType	Text 50	Type of contact (Wholesale, dealer, other)
Name	Text 50	Contact's first name
Company	Text 50	The Contact's employer
Address	Text 50	Contact's address
City	Text 50	Contact's city
State	Text 50	Contact's state
ZipCode	Text 50	Contact's zip code
Phone	Text 50	Contact's phone
Fax	Text 50	Contact's fax
E-Mail	Text 100	Contact's e-mail address
WebSite	Text 100	Contact's Web address
LastSalesDate	Date/Time	The most recent date the contact purchased something
DiscountPercent	Number	The customary discount provided to the customer
Notes	Memo	Notes and observations regarding this customer
Active	Yes/No	Whether the customer is still buying or selling products

Q.2. Create the following tables in MS-Access with the referential integrity-foreign key:

1. tblProducts

Primary Key - ProductID

ProductID	Description	Category	Quantity	Cost	RetailPrice	Product Number	SalePrice	Taxable
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2. tblSalesLineItems

Primary Key - SalesLineItemID

SalesLineItemID	InvoiceNumber	ProductID	ProductNumber	Quantity	Description	Price	Discount
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3. tblSales

Primary Key - InvoiceNumber

InvoiceNumber	SaleDate	InvoiceDate	Buyer	PaymentMethod	TaxLocation	TaxRate
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MS PowerPoint

- Q 1 Create a PPT of Atleast 10 Slides with one slide for comparison, one slide displaying a chart with the table.
- Q 2 Create a PPT presentation use rehearse timing for the slide show
- Q 3 Create PPT presentation slide import sound and video clips.
- Q 4 Create PPT presentation with hyperlinking.
- Q 5 Create PPT presentation and apply themes and transitions.

MS Publisher

- 1. Create a **business card** for your business. Include the following information:
 - a. Logo
 - b. Company Name
 - c. Your name and title (Eg. Owner, President, Manager)
 - d. Address
 - e. Phone
 - f. Email
 - g. Web address
- 2. Create a Greeting Card. Using the following
 - a) Greeting of your choice
 - b) Image on the front of the card
 - c) Cost
 - d) Made by
 - e) Image on the inside folds of the card
 - f) Image on the back of the card
- 3. create a Letterhead for your business. Be sure to include the following information:
 - a. Logo
 - b. Company Name

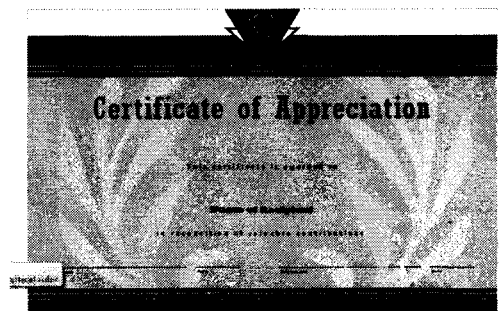
John
07-12-2023

John
07-12-2023

John
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- c. Address
 - d. Phone
 - e. Email
 - f. Web address
4. Create a Flyer for the Open House. Be sure to include the following information:
 - a. Logo
 - b. Company Name
 - c. Address
 - d. Open House
 - e. Date and Time of the Open House
 - f. A little information about what your company does, if it isn't obvious
 - g. Promise some kind of food (Eg. Cookies and punch, hors d'oeuvres, cake)
 - h. Door prizes
 5. Create a brochure that must :
 - a) Modify a template to create a brochure
 - b) Replace placeholder graphics with new
 - c) Use a minimum of 2 graphics
 - d) Replace text
 - e) Appropriate use of text and graphics for a brochure
 6. Create a Invitation Card
 - a) Your Name
 - b) The Event
 - c) The Starting Time
 - d) The Place
 - e) What to Wear
 - f) What to Bring
 7. Create Award Certificate
 - a) All relevant info
 - b) An interesting graphic or picture
 - c) It must be eye catching pleasing
 - d) Originality and creativity

Keep in mind if you wish you use certificate paper or plain paper



8. Create Breakfast Product Advertisement

design an advertisement for a NEW and ORIGINAL breakfast product using Microsoft Publisher. This advertisement should be eye-catching, well balanced, and free of errors.

 - 1 font only-You may use different sizes and colors
 - 3 graphic maximum- Make sure they go with the theme of the ad
 - Name the product using Word Art (watch your font choice!)
 - Create a catchy slogan for the product and rotate using the custom rotate button
 - Provide a short description of the product
 - Create a coupon that includes a border, name of the product, amount saved, and expiration date.
 - Include either a table or bullets somewhere in your design that lists some of the selling points of your product
 - Must fit on one page only
9. Create a banner for a "Grand Opening". include the following:
 - a) Border
 - b) Business Name, Logo, Contact Information
 - c) Date
 - d) Incentive
 - e) Unique Design
10. Create a Gift Certificate/ Gift Card for an existing business that is similar to your group business.
 - a) Business Name, Logo, Contact Information
 - b) Recipient Name
 - c) Amount \$
 - d) Unique Design
 - e) Any other important information

Handwritten signatures and dates:
 Date: 07/12/23
 [Signature]
 [Signature]
 [Signature]

PGDCA-105 : Practical based on PGDCA-103

1 Scheme of Practical Examination:-

Practical examination will be of 3 hours duration. All programs should be with flowchart & algorithms. The distribution of practical marks is as follows and

Programme 1 (with flowchart & algorithms)	-	20
Programme 2 (with flowchart & algorithms)	-	20
Programme 3 (with flowchart & algorithms)	-	20
Viva-Voice	-	25
[Practical Copy + Internal Record]	-	15
Total	-	100

- 2 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.
- 3 In every program there should be comment for each coded line or block of code.
- 4 All the programs or a similar type of programs should be prepared as per the practical list.

List of Practical

INPUT AND OUTPUT, FORMATTING

1. Write a program in which you declare variable of all data types supported by C language. Get input from user and print the value of each variable with alignment left, right and column width 10. For real numbers print their values with two digits right to the decimal.

LOOPS, DECISIONS

2. Write program to print all combination of 1 2 3.
3. Write program to generate following pattern

a) * * * * *	c) *
* * * *	* *
* * *	* * *
**	* * * *
*	* * * * *

b) 1	d) 1
2 3	2 1 2
4 5 6	3 2 1 2 3
7 8 9 10	4 3 2 1 2 3 4

4. Write main function using switch...case, if..else and loops which when called asks pattern type; if user enters 11 then first pattern is generated using for loop. If user enters 12 then first pattern is generated using while loop. If user enters 13 then first pattern is generated using do-while loop. If user enters 21 then a second pattern is generated using for loop and so on.
5. Write program to display number 1 to 10 in octal, decimal and hexadecimal system.
6. Write program to display number from one number system to another number system. The program must ask for the number system in which you will input integer value then the program must ask the number system in which you will want output of the input number after that you have to input the number in specified number system and program will give the output according to number system for output you mentioned.
7. Write a program to perform following tasks using switch...case, loops, and conditional operator (as and when necessary).
 - a) Find factorial of a number
 - b) Print fibonacci series up to n terms and its sum.
 - c) Print sin series up to n terms and its sum.
 - d) Print exponential series up to n terms and its sum.
 - e) Print prime numbers up n terms.
 - f) Print whether a given year is leap or not.

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8. Write program no. 6 but use library function to perform above tasks.

ARRAY

9. Create a single program to perform following tasks using switch, if..else, loop and single dimension character array without using library function:

- a) To reverse the string.
- b) To count the number of characters in string.
- c) To copy the one string to other string;
- d) To find whether a given string is palindrome or not.
- e) To count no. of vowels, consonants in each word of a sentence and no. of punctuation in sentence.
- f) To arrange the alphabets of a string in ascending order.

10. Create a single program to perform following tasks using switch, if..else, loop and single dimension integer array:

- a) Sort the elements.
- c) Search for presence of particular value in array element using linear search.
- d) Search for presence of particular value in array element using binary search.

11. Write a program that read the afternoon day temperature for each day of the month and then report the month average temperature as well as the days on which hottest and coolest days occurred.

12. Create a single program to perform following tasks using switch, if..else, loop and double dimension integer array of size 3x3:

- a) Addition of two matrix.
- b) Subtraction of two matrix.
- c) Multiplication of two matrix.
- d) Inverse of matrix.
- e) Transpose of matrix.
- f) Sum of diagonal elements

13. Create a single program to perform following tasks using switch, if..else, loop and double dimension character array of size 5x40:

- a) Sorting of string.
- b) Finding the largest string.
- c) Finding the smallest string.
- c) Searching for presence of a string in array.

FUNCTIONS

14. Write program using the function power (a, b) to calculate the value of a raised to b.

15. Write program to demonstrate difference between static and auto variable.

16. Write program to demonstrate difference between local and global variable.

17. Write a program to perform following tasks using switch...case, loops and function.

- a) Find factorial of a number
- b) Print Fibonacci series up to n terms and its sum.
- c) Print Sin series up to n terms and its sum.
- d) Print exponential series up to n terms and its sum.

18. Write a program to perform following tasks using switch...case, loops and recursive function.

- a) Find factorial of a number
- b) Print Fibonacci series up to n terms and its sum.
- c) Print Sin series up to n terms and its sum.
- d) Print exponential series up to n terms and its sum.
- e) Print natural series up to n terms and its sum

19. Write a function to accept 10 characters and display whether each input character is digit, uppercase letter or lower case letter.

Answer by 2/2/23

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Array & Function

20. Create a single program to perform following tasks using switch, if..else, loop, function and double dimension integer array of size 3x3:
 - a) Addition of two matrix.
 - b) Subtraction of two matrix.
 - c) Multiplication of two matrix.
 - d) Inverse of matrix.
 - e) Transpose of matrix.
21. Create a single program to perform following tasks using switch, if..else, loop, user defined function and single dimension character array:
 - a) To reverse the string.
 - b) To count the number of characters in string.
 - c) To copy the one string to other string;
 - d) To find whether a given string is palindrome or not.
 - e) To count no. of vowels, consonant in each word of a sentence and no, of punctuations in sentence.
22. Create a single program to perform following tasks using switch, if..else, loop, function and single dimension integer array:
 - a) Sort the elements.
 - b) Find largest element and smallest element.
 - c) Search for presence of particular value in array element using linear search.
 - d) Search for presence of particular value in array element using binary search.
23. Create a single program to perform following tasks using switch, if..else, loop, function and double dimension character array of size 5x40:
 - a) Sorting of string
 - b) Finding the largest string, lexicographically.
 - c) Finding the smallest string, lexicographically.
 - c) Searching for presence of string in array.

STRUCTURE & UNION

24. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare a structure variable of student. Provide facilities to input data in data members and display result of student.
25. Create a structure Date with data member's dd, mm, yy (to store date). Create another structure Employee with data members to hold name of employee, employee id and date of joining (date of joining will be hold by variable of structure Date which appears as data member in Employee Structure). Store data of an employee and print the same.
26. Create a structure Student having data members to store roll number, name of student, name of three subjects, max marks, min marks, obtained marks. Declare array of structure to hold data of 3 students. Provide facilities to display result of all students. Provide facility to display result of specific student whose roll number is given.
27. Write program to create structure complex having data members to store real and imaginary part. Provide following facilities:
 - a) Add two complex nos. using structure variables.
 - b) Subtract two complex nos. using structure variables.
 - c) Multiply two complex nos. using structure variables.
 - d) Divide two complex nos. structure variables.

Use structure as argument to function and function returning structure.

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POINTER

28. Define union Emp having data members:-one integer, one float and one single dimension character array. Declare a union variable in main and test the union variable.
29. Define an enum Days_of_Week members of which will be days of week. Declare an enum variable in main and test it.
30. Write a program of swapping two numbers and demonstrates call by value and call by reference.
31. Write program to sort strings using pointer exchange.
32. Write a program in c using pointer and function to receive a string and a character as argument and return the no. of occurrences of this character in the string.
33. Create a program having pointer to void to store address of integer variable then print value of integer variable using pointer to void. Perform the same operation for float variable.
34. Write program to find biggest number among three numbers using pointer and function.
35. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to store data of employee and print the stored data-using pointer to structure.
36. Write program to Create a structure Employee having data members to store name of employee, employee id, salary. Use Pointer to structure to simulate dynamic array of structure store data of n employees and print the stored data of n employees using pointer to structure.
37. Write a program to sort a single dimension array of integers of n elements simulated by pointer to integer. Use function for sorting the dynamic array.
38. Write a program to sum elements of a double dimension array of integers of m rows and n columns simulated by pointer to pointer to integer. Use function for sum the elements of the dynamic array.
39. Write program to demonstrate difference between character array and pointer to character.
40. Write program to demonstrate difference between constant pointer and pointer to constant.
41. Write program to demonstrate pointer arithmetic.
42. Write program to demonstrate function-returning pointer.
43. Write program using self-referential pointer to structure to create and print the linked list, data structure.

FILE STREAMS

44. Write program to copy content of one file to other file removing extra space between words name of files should come from command line arguments.
45. Write program to create a file 'data' containing a series of integers and count all even numbers present in the file 'data'.
46. Write a program to count no. of tabs, new lines, character and space of a file.
47. Write a program to read item number, rate and quantity from an inventory file and print the followings:
 1. Items having quantity > 5.
 2. Total cost of inventory.

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POST GRADUATE DIPLOMA IN COMPUTER APPLICATION 2022-2023

[DURATION - ONE YEAR - FULL TIME]

The duration of the course shall be one year consisting of two semesters. There shall be three theory and two practical course in the each semester.

- Second Semester:** PGDCA-106 : Programming in VB .Net
PGDCA-107 : Database Management Systems.
PGDCA-108 : Internet and Web Technology.
PGDCA-109 : Practical based on PGDCA106
PGDCA-110 : Practical based on PGDCA107 and PGDCA-108

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PROGRAMMING IN VB .NET

Subject Code - PGDCA-106

Course Outcomes

- Students will understand .NET Framework and describe some of the major enhancements to the new version of Visual Basic.
- Students will describe the basic structure of a Visual Basic.NET project and use main features of the integrated development environment (IDE).
- Students will create applications using Microsoft Windows Forms
- Students will create applications that use ADO. NET

Syllabus

UNIT - I : Introduction to .NET framework

Overview of .net framework features & architecture, Managed Execution process, CLR, common language specification, JIT Compilation, MSIL, Namespaces, Assemblies, metadata, Common Type System, Visual development & event driven programming, cross language, interoperability, Garbage collection.

UNIT - II : Programming with .NET Framework

Windows form: working with Visual Studio IDE, creating a .NET solution, MDI application, components and controls, Data types, variables, Type conversions, Operators, Methods and events, Scope and life time of variables, Creating Enumerations.

UNIT - III Control Structures

Control Structures: conditional statements, loops, arrays, types of methods, method data, creating Sub Procedures and Functions, MsgBox, Inputbox, Introduction to exception handling-try catch statement, finally statement, throw, user define Exception.

UNIT - IV GUI Programming


GUI Programming with window forms, Showing & hiding forms, Textbox, RichText box ,Lable, Button, Listbox, Combobox, Checkbox, PictureBox, Radio button, Toggle Button, Panel, Groupbox, Scrollbar, Timer, Dialog boxes, OpenFile Dialog, SaveFile dialog ,Print dialog, Font dialog, Color dialog, Designing menus and sub menus.

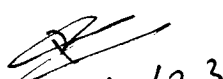
UNIT - V Database programming with ADO.net

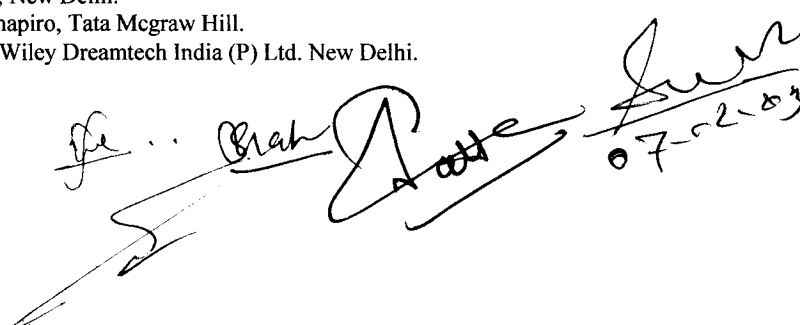
ADO .NET Architecture, .NET data provider, dataset components, creating database applications using Window forms (Database connectivity through ADO .NET), Accessing data using server explorer, Data Adapters & Data sets, Command & Data reader, data bind control, displaying data in data grid.

BOOKS RECOMMENDED

- ✓ MSDN online – by Microsoft
- ✓ Visual Basic .NET Complete - By BPB Publications, New Delhi.
- ✓ The Complete Reference VB .NET – By Jeffery R. Shapiro, Tata Mcgraw Hill.
- ✓ Professional VB .NET 2003 – by bill Evjen & others, Wiley Dreamtech India (P) Ltd. New Delhi.


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Database Management Systems

Subject Code - PGDCA-107

Course Outcomes

- Students will be able to design a database based on the given requirements.
- Students will be able to make projects with knowledge of subject provided to them.
- Students will be able to write Standard Query Language statements.
- Students are expected to apply normalization techniques on given database.

Syllabus

UNIT – I: Introduction To DBMS

Purpose of database systems, views of data, Data Modeling, Database Languages, Transaction Management, Storage Management, Database Administrator and User, Database System Structure.

UNIT – II: E-R Model

Entity - Relationship model as a tool for conceptual design-entities, attributes and relationships. ER diagrams; Concept of keys; Case studies of ER modeling Generalization; specialization and aggregation. Converting an ER model into relational Schema

UNIT – III: Relational Model

Structure to Relational Database, select, project, cross product different types of joins (inner join, outer joins, self-join); set operations, Tuple relational calculus, Domain relational calculus, Simple and complex queries using relational algebra, stand alone and embedded query languages.

UNIT – IV: Relational Database Design

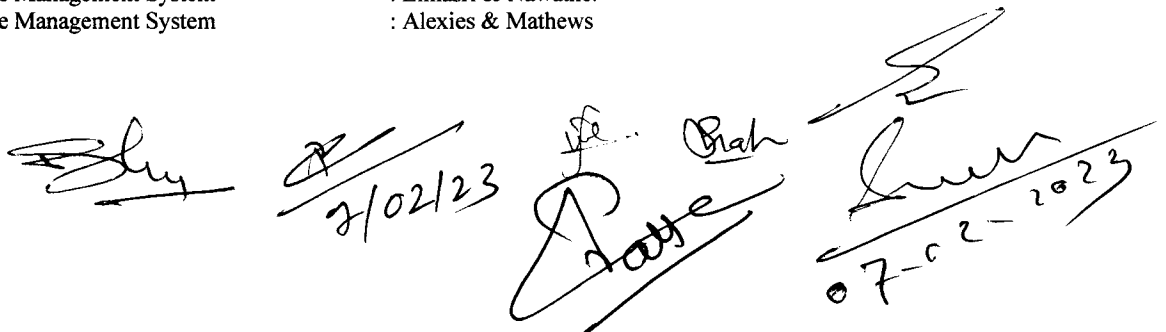
Normalization concept in logical model; Pitfalls in database design, update anomalies: Functional dependencies, Join dependencies, Normal forms (1NF, 2NF, 3NF). Boyce Codd Normal form, Decomposition, Multi-Valued Dependencies, 4NF, 5NF, De-Normalization.

UNIT – V: Introduction to RDBMS Software – SQL/Oracle

Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL* PLUS. **DDL and DML:** Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views: What is Views, Create, Drop and Retrieving data from views. **Security:** - Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.

Recommended Books:

1. Data Base Systems : Silberschatz & Korth.
2. An Introduction to Data base System : C.J. Date
3. Data Base Management System : Raghu Ramakrishnan.
4. Data Base Management System : Elmasri & Nawathe.
5. Data Base Management System : Alexies & Mathews

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INTERNET AND E-COMMERCE

Subject Code - PGDCA-108

Course Outcomes

- Students will be familiar with various Internet protocols and the concepts of Internet.
- Students will be able to differentiate between various e-mail protocols and their working.
- Students will be familiar with the concept of remote login with the understandability of hosting and maintaining of website.
- Students will also get knowledge about Internet security and Firewalls.

Syllabus

UNIT – I

Introduction to Internet: Internet: Evolution, Concepts, Growth of Internet, ISP, ISP in India, Types of connectivity, Dial-up, leased line, DSL, Broadband, RF, VSAT etc., Methods of sharing of internet connection, Use of proxy server, Concept of Search Engines, Search engines types. searching the Web, Web Servers. E-Mail: Concepts of e-mailing, POP and WEB Based E-mail, merits, address, Basics of Sending & Receiving.

UNIT – II

E-Commerce: Introduction to E-Commerce: Emergence of the Internet, Commercial use of the internet, Emergence of World Wide Web, Advantages and Disadvantages of ECommerce, Transition to E-Commerce in India, E-Commerce opportunities for Industries

UNIT – III

Business Models: Business Models for E-commerce, Models based on Relationship of Transaction Brokerage Model, Aggregator Model, infomediary Model, and Community Model. Value Chain parties: B2C, B2B, C2C, C2B: Models based on Model, Manufacturer Model, Advertising Model. Subscription Model, Affiliate Model.

UNIT – IV

Dynamic HTML and Web Designing: HTML Basic concepts, Web designing issue, Structure of HTML documents, HTML Elements: Core attributes, Language attributes, Core Events, Block Level Events, Text Level Events, Linking Basics, Linking in HTML, Images and Anchors, Anchor Attributes, Image Maps, Semantic Linking Meta Information, Image Preliminaries, Image Download issues, Images as Buttons, Introduction to Layout: Backgrounds, Colors and Text, Fonts, Layout with Tables, Introduction to CSS.

UNIT – V

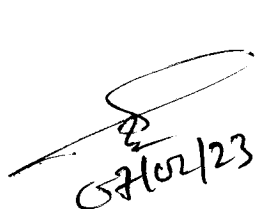
E-Security: Information system security, security on the internet, E-business Risk management issues, E-Payment Systems: Digital payment requirements, Secure Business, Web store, Online Payment, Internet Banking. Security-E-commerce security issues, Cryptography, Digital Signature & Authentication protocol, Digital Certificates, Secure Electronic Transaction (SET)

Text Books:

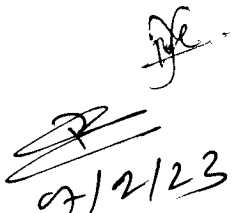
1. E - Commerce: Strategy, Technologies and Applications" by David Whiteley.
2. Internet for Every One, Alexis Leon and Mathews Leon, Tech World.2008 print.

Reference Books:

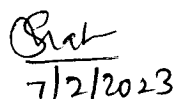
1. Introduction to Computers, P.K.Sinha, BPB Publication, 6th edition.
2. "Electronic Commerce: Framework, Technologies and Applications" by Bhasker.
3. HTML Complete Reference, Thomas A. Powell, TMH
4. Frontiers of Electronics of Commerce, Ravi kalakota & Andrew B. Whinston Addison Wesley, 1196


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PGDCA-109: Practical based on PGDCA106

1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows :

Program 1	-	20
Program 2	-	20
Program 3	-	20
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
Total	-	100

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

Practical List

1. Design the form that calculates Sum, Multiplication, Division and Subtraction of two numbers.
2. Design Simple calculator.
3. Design the form to input radius of a circle and find its circumference and area.
4. Design the form to input length in centimeter and convert it into meter.
5. Design the form to input temperature in Celsius and convert it into Fahrenheit.
6. Design the form to input Principal amount, Time, Rate and calculate Simple Interest and Compound Interest show result information in msgbox.
7. Design a form that shows following operation related to array.
 - a) Sort array elements in ascending or descending order.
 - b) To insert an element in an array
 - c) To delete an element from an array at specified position.
 - e) Print all unique elements in the array.
8. Design a form to check whether a number is PRIME or NOT, using input box and msgbox.
9. Design the form to show the result and percent of PGDCA.
10. Design the following form. So when user clicks on Radio Button then select appropriate checkbox.

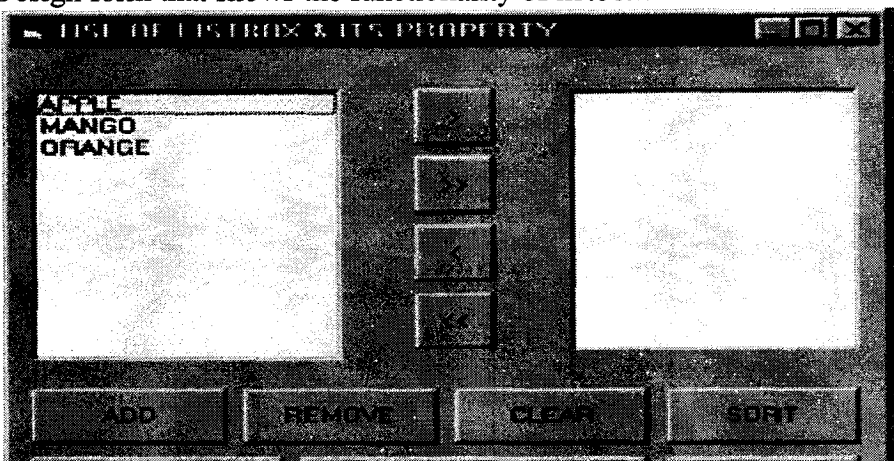
The screenshot shows a Windows application window titled "Use UI Option Buttons, Checkbox". The window contains a form with three main sections:

- Gender:** Two radio buttons are present. "Male" is selected, and "Female" is unselected.
- Age:** Three radio buttons are present. "Less Than 19" is selected, "19 to 40" is unselected, and "Over 40" is unselected.
- Rights:** Three checkboxes are present. "Drive Car" is unselected, "Can Drive Car" is unselected, and "All Rights" is unselected.

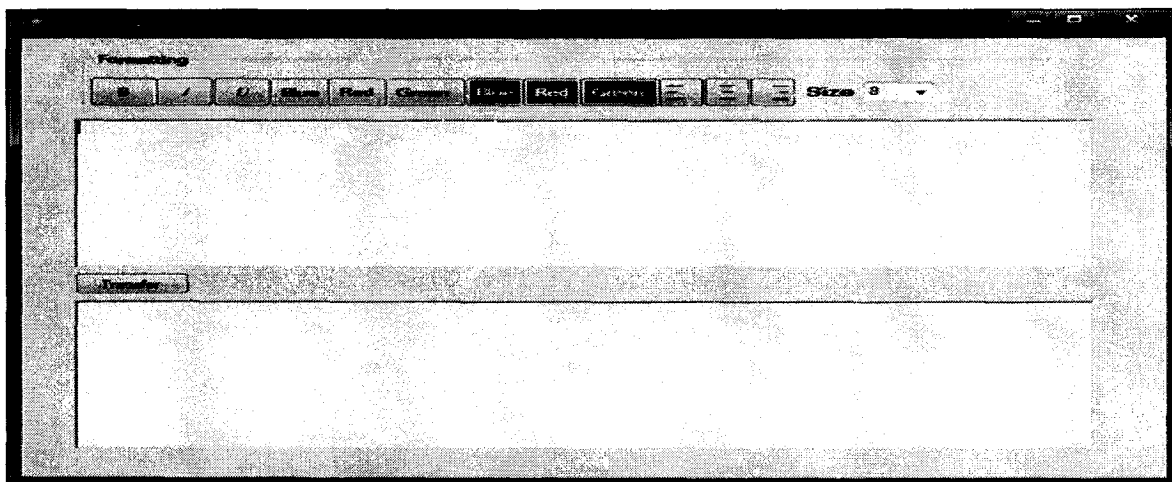
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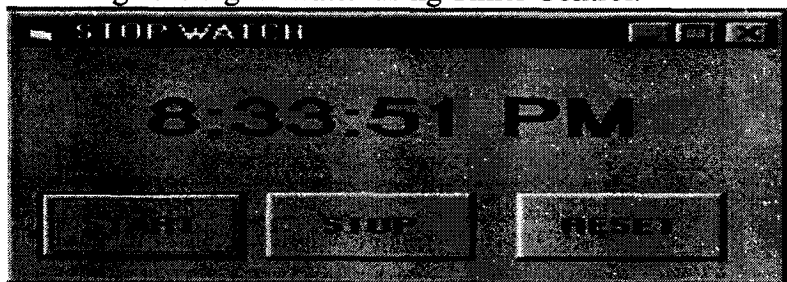
11. Design form that shows the functionality of listbox:



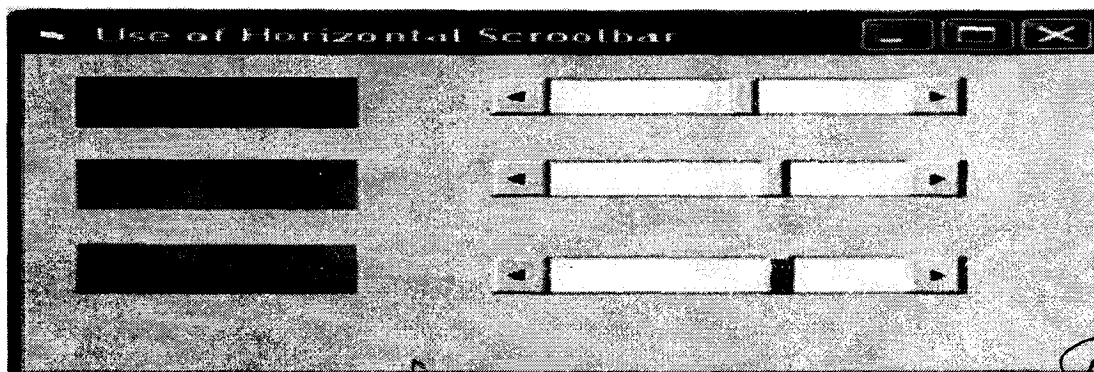
12. Design one form to create application like Rich text document using 1 Rich Textbox and different buttons. When user presses any of this command buttons then the selected content of Rich textbox Will be changed accordingly.



13. Design the digital watch using Timer Control.



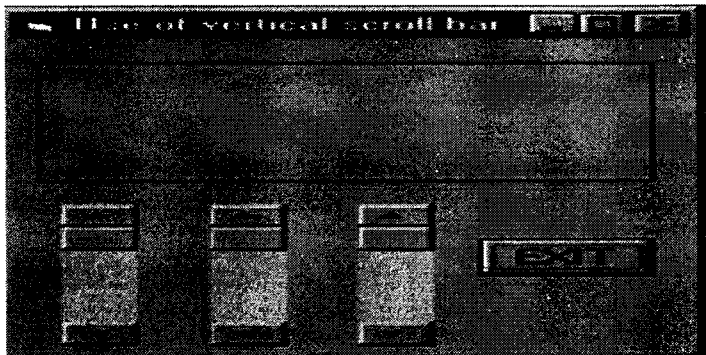
14. Design the following form using horizontal scrollbar. In this, when user click on particular scroll bar then back color of shape will be changed to Red, Green & Blue color



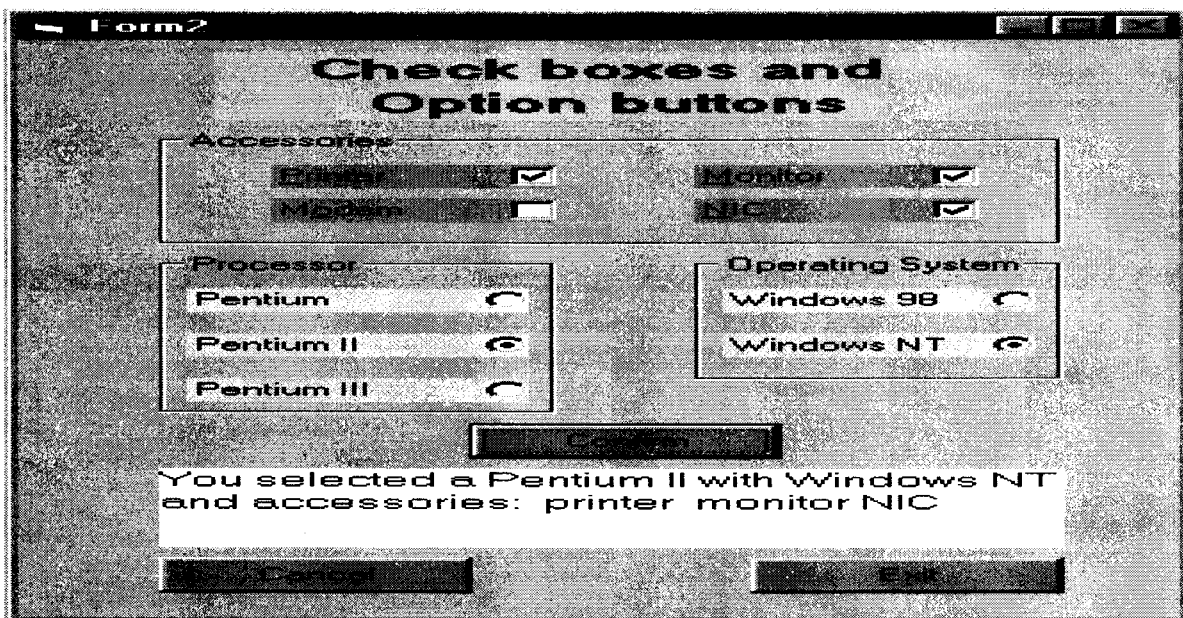
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15. Design the following form using vertical scrollbar. In this, when user click on particular scroll bar then back color of shape will be changed to Red, Green & Blue color



16. Design the form with different controls.



17. WAP for Exception handling of throwing an exception when dividing by zero condition occurs during arithmetic operation.

18. WAP in vb.net such that throw a user define exception when Temperature is zero.

19. WAP to demonstrate handling of multiple exceptions generated in program.

20. Create following table

Student(id, name, course, DOB, address)

Write vb.net application to

Add records

view all the records

Delete the particular record

View all the student who are studying in course PGDCA using DataSet.

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21. Write vb.net application to maintain loan database using connected scenario

Loan(id, cust_num, name, amount, no_of_inst, amt_inst, no_of_inst_over)

Print all the customer who has to pay only one installment.

Print the total amount to be repaid by all the customer

22. Write vb.net application which accesses the following table.

Product_master (pdt_no, description, profit_percent, uni_measure, qty_on_hand, recorder_level, cost_price, sell_price)

Perform insert, delete, view and search for items whose cost price is less than sell price.

23. Write a vb.net application that perform insert, update and delete operations on Employee table & perform a navigation operation on employee records using disconnected scenario.

24. Create table STUDENT with the following columns and datatypes.

Sid Alphanumeric
Name Varchar(20)
DOB DateTime
Addr Varchar(20)
Contact Varchar(10)

1. Insert following records into the table:

Sid	S1	S2	S3
Name	OshoJuneja	NishantSahni	SanyaDua
DOB	28-jan-93	1-oct-92	30-jul-94
Addr	ABC	XYZ	PQR
Contact	9000000000	8000000000	7800000000

ii) Select records from table where age > 22. [Use DOB for age calculation].

iii) Count the record in the table.

iv) Display records of the table order by DOB.

Perform using ADO.net in vb.net

25. Write a vb.net program to show data in data grid view.

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Practical based on PGDCA107 and PGDCA-108

1. Scheme of Examination: -

Practical examination will be of 3 hours duration. The distribution of practical marks is as follows :

Program 1 (SQL)	-	15
Program 2 (SQL)	-	15
Program 3 (HTML)	-	15
Program 4 (HTML)	-	15
Viva-Voice	-	20
[Practical Copy + Internal Record]	-	20
Total	-	100

2 In every program there should be comment for each coded line or block of code.

3 Practical file should contain printed programs with name of author, date, path of program, unit no. and printed output.

4 All the following programs or a similar type of programs should be prepared.

HTML

Q.1. Write an HTML program to create the following table:

Class	Subject1	Subject2	Subject3
BCA I	Visual Basic	PC Software	Electronics
BCA II	C++	DBMS	English
BCA III	Java	Multimedia	CSA

Q.2. Write an HTML program to create the following lists:

- (I) C
- (II) C++
- (III) Fortran
- (IV) COBOL

Q.3. Write an HTML program to create the following lists:

1. Java
2. Visual Basic
3. BASIC
4. COBOL

Q.4. Write an HTML program to demonstrate hyperlinking between two web pages. Create a marquee and also insert an image in the page.

Q.5. Write an HTML program to create frames in HTML with 3 columns (Width = 30%, 30% , 40%).

Q.6. Write an HTML program to create a web page with a blue background and the following text:

New Delhi

New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

Q.7. Write an HTML program to create the following table:

Admission

Course	OC	BC	MBC	SC/ST	TOTAL
Computer science	9	18	5	5	37
Commerce	14	25	6	5	50
Grand total					87

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Q.8. Write an HTML program to create the following table:

Car Price List

Maruti		Tata		Ford	
Model	Price	Model	Price	Model	Price
Maruti 800	2 Lac	Sumo	2 Lac	Ikon	5 Lac
Omni	3 Lac	Scorpio	3 Lac	Gen	2 Lac

Q.9. Write an HTML program to create the following table:

Students Records

Name	Subject	Marks
Arun	Java	70
Varsha	C	80
Ashish	Java	75
Harsha	C	69

Q.10. Create an HTML document and embed a flash movie in it.

Q.11. Write the HTML coding to display the following table. Also insert an image in the web page.

Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70
Operating System	100	33	68
C++	100	33	73

Q.12. Write the HTML coding to display the following table:

Name		Rahul	
Roll No.		101	
Subject	Max	Min	Obtain
Java	100	33	75
Multimedia	100	33	70

Q.13. Write an HTML program to create a form as the following:

Enter Name:

Enter Roll No.:

Enter Age:

Enter DOB:

Q.14. Write an HTML program to create a web page with an image as background and the following text:

New Delhi

New Delhi, the capital and the third largest city of India is a fusion of the ancient and the modern. The refrains of the Muslim dynasties with its architectural delights, give the majestic ambience of the bygone era.

On the other side New Delhi, the imperial city built by British, reflect the fast paced present. The most fascinating of all is the character of Delhi which varies from the 13th present century mausoleum of the Lodi kings to ultra modern glass skyscrapers.

Q.15. Create the following HTML form.

USERNAME:

PASSWORD:

When user types characters in a password field, the browser displays asterisks or bullets instead of characters.

Shree
07-02-2023

Done by *7/2/23* *Bah*

Q.16. Create the following HTML form.

FIRSTNAME :
LASTNAME :

GENDER :
Male Female

SUBJECTS:
Multimedia
Operating System
CSA

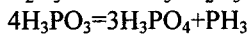
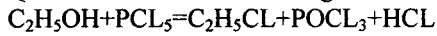
Q.17. Create the following HTML form.

Enter your name :
Enter your rollno :

Subjects :
 Java
 C
 Visual Basic
 C++

Class:
BCA II
BCA III

Q.18. Write the HTML coding for the following equations:



Q.19. Write the HTML code to display the following:

1. Actors

- Bruce Willis
- Gerard Butler
- Vin Diesel
- Bradd Pitt

2. Actress

- Julia Roberts
- Angelina Jolie
- Kate Winslet
- Cameron Diaz

Q.20. Write the HTML code to display the following:

1. Cricket Players

- Batsman
- K.L.Rahul
- Rohit Sharma
- Virat Kohli

2. Bowler

- Bumrah
- R. Ashwin
- Chahar

3. Spinner

- Kuldeep
- Ravindra
- Chahal

Shiv
07-01-2023

Rave

Shiv
21/1/23

Shiv
Shiv

SQL

1. Using the following database,

Colleges (cname, city, address, phone, afdate)
Staffs (sid, sname, address, contacts)
StaffJoins (sid, cname, dept, DOJ, post, salary)
Teachings (sid, class, paperid, fsession, tsession)
Subjects (paperid, subject, paperno, papername)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- List the names of the teachers teaching computer subjects.
- List the names and cities of all staff working in your college.
- List the names and cities of all staff working in your college who earn more than 15,000

2. Using the following database,

Colleges (cname, city, address, phone, afdate)
Staffs (sid, sname, saddress, contacts)
StaffJoins (sid, cname, dept, DOJ, post, salary)
Teachings (sid, class, paperid, fsession, tsession)
Subjects (paperid, subject, paperno, papername)

Write SQL statements for the following –

- Find the staffs whose names start with 'M' or 'R' and ends with 'A' and/or 7 characters long.
- Find the staffs whose date of joining is 2005.
- Modify the database so that staff N1 now works in C2 College.
- List the names of subjects, which T1 teaches in this session or all sessions.
- Find the classes that T1 do not teach at present session.

3. Using the following database,

Colleges (cname, city, address, phone, afdate)
Staffs (sid, sname, saddress, contacts)
StaffJoins (sid, cname, dept, DOJ, post, salary)
Teachings (sid, class, paperid, fsession, tsession)
Subjects (paperid, subject, paperno, papername)

Write SQL statements for the following –

- Find the colleges who have most number of staffs.
- Find the staffs that earn a higher salary who earn greater than average salary of their college.
- Find the colleges whose average salary is more than average salary of C2
- Find the college that has the smallest payroll.
- Find the colleges where the total salary is greater than the average salary of all colleges.

4. Using the following database,

Colleges (cname, city, address, phone, afdate)
Staffs (sid, sname, saddress, contacts)
StaffJoins (sid, cname, dept, DOJ, post, salary)
Teachings (sid, class, paperid, fsession, tsession)
Subjects (paperid, subject, paperno, papername)

Write SQL statements for the following –

- List maximum, average, minimum salary of each college
- List the names of the teachers, departments teaching in more than one department.
- Acquire details of staffs by name in a college or each college.
- Find the names of staff that earn more than each staff of C2 College.
- Give all principals a 10% rise in salary unless their salary becomes greater than 20,000 in such case give 5% rise.

Sum
07-12-2023

Rate *Shy* *01/12/23* *Prak*

5. Using the following database,

Colleges (cname, city, address, phone, afdate)
Staffs (sid, sname, saddress, contacts)
StaffJoins (sid, cname, dept, DOJ, post, salary)
Teachings (sid, class, paperid, fsession, tsession)
Subjects (paperid, subject, paperno, papername)

Write SQL statements for the following –

- Find all staff that do not work in same cities as the colleges they work.
- List names of employees in ascending order according to salary who are working in your college or all colleges.
- Create a view having fields sname, cname, dept, DOJ, and post
- Create a view consisting of cname, average salary and total salary of all staff in that college.
- Select the colleges having highest and lowest average salary using above views.
- List the staff names of a department using above views.

6. Using the following database,

Enrollment (enrollno, name, gender, DOB, address, phone)
Admission (admno, enrollno, course, yearsem, date, cname)
Colleges (cname, city, address, phone, afdate)
FeeStructure (course, yearsem, fee)
Payment (billno, admno, amount, pdate, purpose)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- Get full detail of all students who took admission this year class wise
- Get detail of students who took admission in Bhilai colleges.
- Calculate the total amount of fees collected in this session
 - By your college
 - by each college
 - by all colleges

7. Using the following database,

Enrollment (enrollno, name, gender, DOB, address, phone)
Admission (admno, enrollno, course, yearsem, date, cname)
Colleges (cname, city, address, phone, afdate)
FeeStructure (course, yearsem, fee)
Payment (billno, admno, amount, pdate, purpose)

Write SQL statements for the following –

- List the students who have not payed full fee
 - in your college
 - in all colleges
- List the number of admissions in your class in every year.
- List the students in the session who are not in the colleges in the same city as they live in.
- List the students in colleges in your city and also live in your city.
- Delete all the records of student who live in city Raipur.

8. Subjects (paperid, subject, paper, papername)

Test (paperid, date, time, max, min)
Score (rollno, paperid, marks, attendance)
Students (admno, rollno, class, yearsem)

Write SQL statements for the following –

- Create the above tables with the given specifications and constraints.
- Insert about 10 rows as are appropriate to solve the following queries.
- List the students who were present in a paper of a subject.
- List all roll numbers who have passed in first division.
- List all students in BCA-II who have scored higher than average
 - in your college
 - in every college

Prateek
07.2.23

07/02/23

Brah
07/02/23

07.2.2023