

PART - I

SULLABUS FOR ENVIRONMENTAL STUDIES" FOR UNDER GRADUATE

1. "इन्वाहमेन्टल साईसेस" 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।  
बी.काम. भाग 1, 2 एवं 3 में से किसी वर्ष में पर्यावरण अध्ययन प्रश्न-पत्र उत्तीर्ण करना अनिवार्य है। तभी उपाधि प्रदाय योग्य होगी।
2. पाठ्यक्रम 100 अंको का होगा, जिसमें से 75 अंक सैद्धांतिक प्रश्नों पर होंगे एवं 25 अंक क्षेत्रीय कार्य (Field Work) पर होंगे।
3. सैद्धांतिक प्रश्नों पर अंक - 75 (सभी प्रश्न इकाई आधार पर रहेंगे जिसमें आंतरिक विकल्प रहेगा)  
(अ) लघु प्रश्नों-तरीय - 25 अंक  
(ब) निबंधात्मक - 50 अंक
4. Field Work - 25अंकों का मूल्यांकन आंतरिक मूल्यांकन पद्धति से कर विश्वविद्यालय को प्रेषित किया जावेगा। अभिलेखों की प्रयोगिक उत्तर पुस्तिकाओं के समान संबंधित महाविद्यालयों द्वारा सुरक्षित रखेंगे।
5. उपरोक्त पाठ्यक्रम से संबंधित परीक्षा का आयोजन वार्षिक परीक्षा के साथ किया जाएगा।
6. 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 में संयुक्त रूप से 33% (तैंतीस प्रतिशत) अंक उत्तीर्ण होने के लिए अनिवार्य होंगे।
7. स्नातक स्तर भाग-एक के समस्त नियमित/भूतपूर्व/अमहाविद्यालयीन छात्र/छात्राओं को अपना फील्ड वर्क सैद्धांतिक परीक्षा की समाप्ति के पश्चात 10 (दस) दिनों के भीतर संबंधित महाविद्यालय/परीक्षा केन्द्र में जमा करेंगे एवं महाविद्यालय के प्राचार्य/केन्द्र अधीक्षकों/परीक्षकों की नियुक्ति के लिए अधिकृत रहेंगे तथा फील्ड वर्क जमा होने के सात दिनों के भीतर प्राप्त अंक विश्वविद्यालय को भेजेंगे।

PART - I

SYLLABUS FOR ENVIRONMENTAL STUDIES" FOR UNDER GRADUATE

M.M. 75

UNIT-I THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES :

Definition, scope and importance

Need for public awarness.

**Natural Resources :**

**Renewable and nonrenewable resources :**

Natural resources and associated problems.

(a) Forest resources : Use and over-exploitation, deforestation, case studies, Timber extraction, mining, dams and their effects on forests and tribal people.

(b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.

(c) Mineral resources : Use and explocation, environmental effects of extracting and



using mineral resources, case studies.

- (d) Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- (e) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.
- (f) Land resources : Land as a resources, land degradation, man induced landslides, soil erosion and desertification.
  - Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable life-styles.

(9 Lecture)

## UNIT-II ECOSYSTEMS

**Concept of an ecosystems.**

**Structure and function of an ecosystem.**

- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem :
  - a. Forest ecosystem
  - b. Grassland ecosystem
  - c. Desert ecosystem
  - d. Aquatic ecosystems (Ponds, streams, lakes, rivers, oceans, estuaries)

(9 Lecture)

## UNIT-III Biodiversity and its Conservation

- Introduction - Definition : genetic, species and ecosystem diversity.
- Biogeographical classification of India.
- Value of biodiversity : consumptive use, productive use, social, ethical, 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/wildlife conflicts.
- Endangered and endemi species of India.
- Conservation of biodiversity : In situ and Ex-situ conservation of biodiversity

(9 Lecture)

## UNIT-IV Environmental Pollution

**Definition**



- Causes, effects and control measures of -
  - a. Air pollution
  - b. Water pollution
  - c. Soil pollution
  - d. Marine pollution
  - e. Noise pollution
  - g. Nuclear hazards.
- Solid waste management : Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Pollution case studies
- Disaster management : floods, earthquake, cyclone and landslides.

#### **Human Population and the Environment**

- Population growth, variation among nations,
- Population explosion - Family Welfare Programme.
- Environment and human health.
- Human Rights.

(9 Lecture)

#### **UNIT-V Social Issues and the Environment**

- 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. Case studies.
- Environmental ethics : Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation.
- Consumerism and waste products.
- Environment Protection Act
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and Control of Pollution) Act.
- Wildlife Protection Act.
- Forest Conservation Act.
- Issues involved in enforcement of environmental legislation.
- Public awareness.
- Value Education
- HIV/AIDS
- Women and Child Welfare.
- Role of Information Technology in Environment and Human Health.
- Case Studies.

(9 Lecture)



## FIELD WORK

- Visit to a local area to document environmental assets-river/forest/grassland/hill/mountain.
- Visit to local polluted site : Urban/Rural/Industrial/Agriculture.
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours)

## REFERENCES :

1. Agarwal K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
2. Bharucha Erach, the Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad 380 013, India, Email : mapin@icenet.net(R)
3. Bruinner R.C., 1989, Hazardous Waste Incineration, Mc Graw Hill Inc. 480p.
4. Clark R.S., Marine Pollution, Clanderson Press Oxford (TB).
5. Cuningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 200.
6. Dr A.K. Environmental Chemisry, Wiley Estern Ltd.
7. Down to Earth, Centre for Science and Environment (R)
8. Gloick, H.P. 1993 Water in crisis, Pacific Institute for studies in Deve, Environment & Security. Stockholm Eng. Institute. Oxford Univ, Press. 473p.
9. Hawkins R.E. Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R).
10. Heywood, V.H. & Watson, R.T. 1995 Global Biodiversity Assessment, Cabridge Univ. Press 1140p.
11. Jadhav H. & Bhosale, Y.H. 1995, Environmental Protection and Laws. Himalaya Pub. House. Delhi 284p.
12. Mckinney M.L. & School R.M. 1996, Environmental Science systems & Solutions, Web enhanced editio, 639p.
13. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB).
14. Miller T.G. Jr., Environmental Science, Wadsworth Publishing Co. (TB).
15. Odum, E.P. 1971, Fundamentals of Ecology, W.B. Saunders Co. USA, 574p.
16. Rao M.N. & Datta, A.K. 1987, Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
17. Sharma B.K., 2001, Environmental Chemistry, Goel Publ. House, Meerut.
18. Survey of the Environment, The Hidu (M).
19. Townsend C., Harper J., and Michael Begon, Essentials of Ecology, Blackwell Science (TB).
20. Trivedi R.K. Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol. I and II, Environment Media (R).
21. Trivedi R.K., and P.K. Goel, Introduction to air pollution, Techno-Science Publications (TB).
22. Wagner K.D., 1998, Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p.

(M) Magazine

(R) Reference

(TB) Textbook.



# हिन्दी भाषा

भाग - दो, आधार पाठ्यक्रम

प्रश्न पत्र - प्रथम

(हिन्दी भाषा)

पूर्णांक : 75

अंक - 30

खण्ड - क

निम्नलिखित 5 लेखकों के एक-एक निबन्ध पाठ्यक्रम में सम्मिलित होंगे -

- |                        |   |                          |
|------------------------|---|--------------------------|
| 1. महात्मा गांधी       | - | सत्य और अहिंसा           |
| 2. विनोबा भावे         | - | ग्राम-सेवा               |
| 3. आचार्य नरेन्द्र देव | - | युवकों का समाज में स्थान |
| 4. वासुदेवशरण अग्रवाल  | - | मातृ-भूमि                |
| 5. भगवतशरण उपाध्याय    | - | हिमालय की व्युत्पत्ति    |
| 6. हरि ठाकुर           | - | डॉ. खूब चन्द बघेल        |

खण्ड - ख

अंक - 20

हिन्दी भाषा और उसके विविध रूप

- कार्यालयीन भाषा
- मीडिया की भाषा
- वित्त एवं वाणिज्य की भाषा
- मूशीनी भाषा

खण्ड - ग

अंक - 25

अनुवाद व्यवहार : अंग्रेजी से हिन्दी में अनुवाद

हिन्दी की व्यवहारिक कोटियाँ -

रचनागत प्रयोगगत उदाहरण, संज्ञा, सर्वनाम, विशेषण, क्रिया विशेषण, समास, संधि एवं संक्षिप्तियाँ, रचना एवं प्रयोगगत विवेचना।



## ENGLISH LANGUAGE

B.A. / B.Sc. / B.COM. / B.H.Sc. - II

M.M.75

The question paper for B.A./B.Sc./B.Com./B.H.Sc., English Language and cultural values shall comprise the following units :

<b>UNIT-I</b>	Short answer questions to be asked by (Five short answer questions of three marks each)	15 Marks
<b>UNIT-II</b>	(a) Reading comprehension of an unseen passage (b) Vocabulary	05 Marks
<b>UNIT-III</b>	Report-Writing	10 Marks
<b>UNIT-IV</b>	Expansion of an idea	10 Marks
<b>UNIT-V</b>	Grammar and Vocabulary based on the prescribed text book.	20+15 Marks

**Note :** Question on all the units shall be asked from the prescribed text which will comprise specimens of popular creative/writing and the following if any

(a) Matter & technology

(i) State of matter and its structure

(ii) Technology (Electronics Communication, Space Science)

(b) Our Scientists & institutions

(i) Life & work of our eminent scientist Arya Bhatt, Kaundilya, Charak, Shusruta, Nagarjuna, J.C. Bose and C.V. Raman, S. Ramanujam, Homi J. Bhabha, Birbal Sahani.

(iii) Indian Scientific Institutions (Ancient & Modern)

### Books Prescribed :

Foundation English for U.G. Second Year - Published by M.P. Hindi Granth Academy Bhopal.



**COMPULSORY**  
**Group - I - Accounting**  
**PAPER - I**  
**CORPORATE ACCOUNTING**

**Max. M. 75**

**Min. M. 25**

**OBJECTIVE**

This course enable the students to develop awareness about corporate accounting in conformity with the provisions of companies Act.

**COURSE INPUTS**

- UNIT-I** Issue, Forfeiture, and Re-issue of Shares : Redemption of preference shares; Issue and redemption of debentures.
- UNIT-II** Final Accounts; Excluding computation of managerial remuneration, and disposal of profit, Liquidation of Company.
- UNIT-III** Valuation of Goodwill and Shares.
- UNIT-IV** Accounting for Amalgamation of Companies as per Indian Accounting Standard 14; Accounting for internal reconstruction - excluding intercompany holdings and reconstruction schemes.
- UNIT-V** Consolidated Balance Sheet of holding companies with one subsidiary only. Final Account of Banking Companies.

**SUGGESTED READINGS :**

1. Gupta R.L., Radhaswamy M; Company Accounts; Sultan Chand & Sons, New Delhi.
2. Maheshwari S.N. Corporate Accounting; Vikas Publishing House, New Delhi.
3. Monga J.R., Ahuja, Girish and Sehgal Ashok : Financial Accounting; Mayur Paper Backs, Noida.
4. Shukla M.C., Grewal T.S. and Gupta S.C. : Advanced Accounts; S. Chand & Co., New Delhi.
5. Moore C.L. and Jaedicke R.K. : Managerial Accounting; South Western Publishing Co. Cincinnati, Ohio.
6. Dr. S.M. Shukla, Sahitya Bhawan Agra.
7. Dr. Hanif & Mukerjee - Published Mac Millan.
8. Dr. Mangal Mehta & Agrawal Published - Indore.
9. Dr. Karim Khanuja - Published - Agra.



**COMPULSORY**  
**Group - I - Accounting**  
**PAPER - II**  
**COST ACCOUNTING**

Max. M. 75

Min. M. 25

**OBJECTIVE**

This course exposes the students to the basic concepts and the tools used in cost accounting.

**COURSE INPUTS**

**UNIT-I** Introduction : Nature and scope of cost accounting ; Cost concepts and classification; Methods and techniques; Installation of costing system; Concept of cost audit. Accounting for Material : Material Control; Concept and techniques; Pricing of material issues; Treatment of material losses.

**UNIT-II** Accounting for Labour : Labour cost control procedure; Labour turnover; Idle time and overtime; Methods of wage payment - time and piece rates; Incentive schemes. Accounting for overheads; Classification and departmentalization; Absorption of overheads; Determination of overhead rates; Under and over absorption, and its treatment.

**UNIT-III** Cost Ascertainment : Unit costing; Job, batch and contract costing.

**UNIT-IV** Operating costing; Process Costing - excluding inter - process profits, and joint and by - products.

**UNIT-V** Cost Records : Intergal and non - integral system; Reconciliation of cost and financial accounts; Break Even Point.

**SUGGESTED READINGS :**

1. Arora M.N. : Cost Accounting - Principles and Practice; Vikas, New Delhi.
2. Jain S.P. and Narang K.L. : Cost Accounting; Kalyani New Delhi.
3. Anthony Robert, Reece, et al : Principles of Management Accounting; Richard D. Irwin Inc. Illinois.
4. Horngren, Charles, Foster and Datar : Cost Accounting - A Managerial Emphasis; Prentice - Hall of India, New Delhi.
5. Khan M.Y. and Jain P.K; Management Accounting; Tata McGraw Hill.
6. Kaplan R.S. and Atkinson A.A. : Advanced Management Accounting; Prentice India International.
7. Tulsian P.C.; Practical costing : Vikas, New Delhi.
8. Maheshwari S.N. : Advanced Problems and Solutions in Cost Accounting; Sultan Chand, New Delhi.
9. M.L. Agrawal : Sahitya Bhawan Agra.



**COMPULSORY**  
**Group - II - Business Management**  
**PAPER - I**  
**PRINCIPLES OF BUSINESS MANAGEMENT**

**Max. M. 75**

**OBJECTIVE**

This Course familiarizes the students with the basics of principles of management.

**COURSE INPUTS**

- UNIT-I** Introduction : Concept, nature, process, and significance of management; management roles (Mintzberg); An overview of functional areas of management; Development management thought; Classical and neo-classical systems; Concept approaches.
- UNIT-II** Planning : Concept, process and types. Decision making - concept and Bounded rationality; Management by objectives; Corporate planning; Environment analysis and diagnosis; Strategy formulation.
- UNIT-III** Organizing : Concept, nature, process and significance; Authority and resident relationships; Centralization and decentralization; Departmentation; Organization structure - forms and contingency factors.
- UNIT-IV** Motivating and Leading People at work : Motivation - concept; Theories Herzberg, McGregor, and Ouchi; Financial and non- financial incentives.  
Leadership - concept and leadership styles; Leadership theories (Tannenb Schmidt.); Likert's System Management;  
Communication - nature, process, networks, and barriers, Effective Communication.
- UNIT-V** Managerial Control : Concept and process; Effective control system; Technical control - traditional and modern.  
Management of Change : Concept, nature, and process of planned Resistance to change; Emerging horizons of management in a environment.

**SUGGESTED READINGS :**

1. Drucker peter F : Management Challenges for the 21st Century; Butterworth Heinemann, Oxford.
2. Wehrich and Koontz, et al : Essentials of Management; Tata McGraw Hill, New Delhi.
3. Fred Luthans : Orniztion Behaviour; McGrow Hill, New York.
4. Louis A Allen : Management and Organisation; McGrow Hill, Tokyo.
5. Ansoff H.I. : Corporate Strategy; McGrow Hill, New York.
6. Hampton, David R. : Modern Management; McGrow Hill, New York.
7. Dr. R.C. Agrawal, Agra.
8. Dr. S.C. Saxena, Agra.



**COMPULSORY**  
**Group - II - Business Management**  
**PAPER - II**  
**COMPANY LAW**

Max. M. 75

**OBJECTIVE**

This objective of this course is to provide basic knowledge of the provisions Companies Act, 1956, along with relevant case law.

**COURSE INPUTS**

(The Companies Act, excluding provisions relating to accounts and audit sections, a agents and secretaries and treasurers Sections 324 - 388E, arbitration, compare arrangements and reconstructions - section 389-396.)

**UNIT-I** Corporate personalities; Kinds of Companies, Nature & Scope, promotion on and incorporation of companies.

**UNIT-II** Memorandum of Association; Articles of Association; Prospectus, Shares; share capital - transfer and transmission.

**UNIT-III** Capital management - borrowing powers, mortgages and charges, debentures. Directors - Managing Director, whole time director, Appointment, Remuneration, and duties.

**UNIT-IV** Company meetings - kinds, Notice, quorum, voting, proxy, resolutions, minutes.

**UNIT-V** majority powers and minority rights; Prevention of oppression and mismanagement. Winding up - kinds and conduct.

**SUGGESTED READINGS :**

1. Gower L.C.B. : Principles of Modern Company Law; Stevens & Sons, London.
2. Ramaiya A. : Guide to the companies Act; Wadhwa & Co. Nagpur.
3. Singh Avtar : Company Law; Eastern Book Co., Lucknow.
4. Kuchal M.C. : Modern India Company Law; Shri Mahavir Books, Noida.
5. Kapoor N.D. : Company Law - Incorporating the Provisions of the companies Amendment Act, 2000 Chand & Sons, New Delhi.
6. Bagrial A.K. : Company Law; Vikas Publishing House, New Delhi.
7. Dr. S.M. Shukla.
8. Dr. R.C. Agrawal.



**COMPULSORY**  
**Group - III - Applied Economics**  
**PAPER - I**  
**BUSINESS STATISTICS**

Max. M. 75

**OBJECTIVE**

It enable the students to gain understanding of statistical techniques as are applicable to business.

**COURSE INPUTS**

- UNIT-I** Introduction : Statistics as a subject; Descriptive Statistics - compared to Inferential Statistics; Types of data; Summation operation; Rules of Sigma E operations, Analysis of University Data; Construction of a frequency distribution; Concept of central tendency.
- UNIT-II** Dispersion - and their measures; Partition values; Moments; Skewness and measures; Kurtosis and measures.
- UNIT-III** Analysis of Bivariate Data : Linear regression two variables and correlation.
- UNIT-IV** Index Number; Meaning, types, and uses; Methods of Constructing price and quantity indices (simple and aggregate); Tests of adequacy; Chain - base index numbers; Base shifting, splicing and deflating; Problems in constructing index numbers; Consumer price index. Analysis of Time Series : Cause of Variation in time series data; Components of a time series; Decomposition - Additive and Multiplicative models; Determination of trend - Moving Averages Method and method of least squares (including linear, second degree, parabolic, and exponential trend); Computation of seasonal indices by simple averages, ratio - to - trend, ratio - to - moving average, and link relative methods.
- UNIT-V** Forecasting and Methods : Forecasting - concept, types and importance; General approach to forecasting; Methods of forecasting; demand; Industry Vs Company sales forecast; Factors affecting company sales. Theory of Probability : as a concept; The three approaches to defining probability; Addition and multiplication laws of probability; Conditional Probability; Bayes' Theorem; Expectation and Variance of a random variable.



**COMPULSORY**  
**Group - III - Applied Economics**  
**PAPER - II**  
**FUNDAMENTALS OF ENTREPRENEURSHIP**

Max. M. 75

**OBJECTIVE**

It Provides exposure to the students to the entrepreneurial culture and industrial growth so as to preparing them to set up and manage their own small units.

**COURSE INPUTS**

- UNIT-I** Introduction : The entrepreneur; Definition; Emergence of entrepreneurial class; Theories of entrepreneurship; Role of socio - economic environment; Characteristics.
- UNIT-II** Promotion of a Venture; Opportunities analysis; External environmental analysis economic, social and technological; Competitive factors; Legal requirements for establishment of a new unit, and raising of funds; Venture capital sources and documentation required.
- UNIT-III** Entrepreneurial Behavior : Innovation and entrepreneur; Entrepreneurial behavior and Psycho - Theories, Social responsibility.
- UNIT-IV** Entrepreneurial Development Programs (EDP) : EDP, their role, relevance, and achievements; Role of Government in organizing EDPs; Critical evaluation.
- UNIT-V** Role of Entrepreneur : Role of an entrepreneur in economic growth as an innovator, generation of employment opportunities, complementing and supplementing economic growth, bringing about social stability and balanced regional development of industries; Role in export promotion and import substitution, forex earnings, and augmenting and meeting local demand.

**SUGGESTED READINGS :**

1. Tandon B.C. : Environment and Entrepreneur; Chugh Publications, Allahabad.
2. Siner A David : Entrepreneurial Megabooks; John Wiley and Sons, New York.
3. Srivastava S.B. : A Practical Guide to industrial Entrepreneurs; Sultan Chand and Sons, New Delhi.
4. Prasanna Chandra : Project Preparation, Appraisal, Implementation; Tata McGraw Hill, New Delhi.
5. Pandey I.M. : Venture Capital - The Indian Experience; Prentice Hall of India.
6. Holt : Entrepreneurship - New Venture Cration; Prentice Hall of India.