

**Government Post-Graduate College, Ambala Cantt.**  
(Affiliated to Kurukshetra University, Kurukshetra)



### **1.3.1**

**List and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.**

# M.Sc. Geography Semester 1

**GEOG-101**

**Climatology**

**(Environment Sustainability)**

**Max. Marks :80**

**Time: 3Hrs.**

**Note:- There will be nine questions in all. Question No. 1 is compulsory and consists of 10 short notes (required to be answered in not more than 25 words each). Short notes shall cover entire syllabus. There will be 8 long questions, two from each unit. The candidate shall attempt FOUR long questions, one from each unit. Question 1 carries 20 marks while remaining four questions carry 15 marks each.**

## **UNIT-I**

1. Definition of weather and climate; Climatology and Meteorology.
2. Origin, composition and structure of atmosphere.
3. Solar radiation, heat budget and temperature distribution.

## **UNIT-II**

4. Atmospheric pressure and its distribution pattern..
5. General circulation and planetary winds, Walker circulation- ENSO and La Nina, origin of monsoons and jet streams.
6. Atmospheric Moisture : humidity, evaporation, condensation.

## **UNIT-III**

7. Precipitation : Dynamics and types of precipitation.
8. Stability and instability of atmosphere, air masses and fronts.
9. Weather systems : Extra tropical and tropical cyclones.

## **UNIT-IV**

10. Climatic classification: Bases of climatic classification by Koeppen, Trewartha and Thornthwaite.
11. Climatic change- Evidences and explanations.
12. Global warming and its impacts.

### **Suggested Readings:**

1. Trewartha G. T., An Introduction to Climate, McGraw Hill Company, New York, 1980.
2. Chritchfield, H J, General Climatology, Printice Hall of India, New Delhi, 1987.
3. Barry R. G. and Chorley, R. J, Atmosphere, Weather and Climate, Marthren , 1968.
4. Lal, DS, Climatology, Chetanya Publishing House, Allahabad, 1966
5. Das, PK, The Monsoons, National Book Trust, New Delhi, 1984
6. Ramasastry, AA, Weather and Weather Forecasting, Publication Division, New Delhi.

# M.Com Semester 1

## MC 102 BUSINESS ENVIRONMENT

### (Professional Ethics)

External Marks: 80

Internal Marks: 20

Time : 3 Hours

**Note:** There will be eight (8) questions in all. The first question is compulsory and consists of six (6) short-questions having four (4) marks each. Answer to these questions should not exceed 150 words. The candidate will be required to attempt any four questions out of remaining seven (7) questions and each question carries fourteen (14) marks each. Duration of each paper will be three (3) hours.

**Business environment:** nature and importance; Interaction matrix of different environment factors; Environmental scanning.

Economic planning in India: objectives, strategies and problems; Privatization; Globalization; Disinvestment in Public Sector Units; **Business Ethics**; Corporate Governance; **Social responsibility of Business**.

Fiscal Policy; Monetary Policy; Industrial Policy; Industrial Licensing Policy; EXIM Policy; Industrial sickness; Development and protection of Small Scale Industry.

**The Environment (Protection) Act:** Consumer Protection Act; Competition Act; Foreign Exchange Management Act; Right to Information Act.

### REFERENCES

- Arya, P P and Tandon, B. B.: *Economic Reforms in India*, Deep and Deep Publishers, New Delhi.  
Aswathappa, K: *Essentials of Business Environment*, Himalaya Publishing House, New Delhi.  
Cherunilam Francis: *Business Environment*, Himalaya Publishing House, New Delhi.  
*Economic Survey – Various Issues*, Govt. of India, Ministry of Finance.  
Justin Paul: *Business Environment*, Tata McGraw Hill, New Delhi.  
Mishra and Puri: *Economic Environment of Business*, Himalaya Publishing House, New Delhi.  
Rosy Joshi and Sangam Kapoor: *Business Environment*, Kalyani Publishers, New Delhi.  
Saleem Saikh: *Business Environment*, Himalaya Publishing House, New Delhi.  
Sengupta, N.K: *Government and Business in India*, Vikas Publication, New Delhi.

# M.A. Economics Semester 4

M.A. (4<sup>th</sup> Semester)  
Paper- 407

Session : 2013-14  
Time : 3 Hrs.  
Max. Marks : 100  
External : 80  
Internal : 20

## (Environment Sustainability)

### ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR-II

- Note:** (i) Nine Question will be set in all and students will be required to attempt 5 questions.  
(ii) Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2\*8=16 marks).  
(iii) For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

#### PREAMBLE

This course is meant to provide some insights into the application of economic theory in the design and implementation of public policy related to the management of environment and social sectors. The course finds roots in welfare economics, national income accounting, macroeconomic policies and trade and development. Modules incorporated in this paper are devoted to issues of environmental economics, environmental and social services and the problem of valuation of these services, and designing of instruments and institutions for the management of environment. The models of optimal use of natural resources, macroeconomic issues, sustainable development, environmental resource problems in India and the economics of health and education constitute the other areas of the modules of this paper.

#### Unit-I

Concept and indicators of sustainable development - sustainability rules, Common-Perrings model; The Solow/Hartwick approach to sustainability. System of integrated environmental and economic accounting (SEEA).

#### Unit-II

Management of common property resources; CPRs, LDCs and sustainable development; Subsidies, controls and use of natural capital in India. Political Economy of ecology and equity; Gender perspective in environmental management.

#### Unit-III

Environment and energy; Water and air pollution - existing pollution control mechanisms; Land and forest degradation and the strategy for regeneration; Wetlands - policy briefs; International trade and environment; Global environmental issues; Problems in managing climate change.

#### Unit-IV

Education as an instrument for economic growth; Important issues in basic and higher education; Economic dimensions of health care and determinants of health; Role of Government and market in health care; Inequalities in health and education - the class and gender perspective; Financing of education and health in India.

## M.A. English Semester 3

COURSE-XV: (Option-I)

Literature and Gender (Part-I)

(Gender)

Max. Marks : 80

Time : 3 Hours

**Note: (To be printed in the question paper)**

1. Besides question no. 1, which is compulsory, a candidate shall choose one question from each of the four units, attempting five questions in all.
2. Each of the 5 questions carries 16 marks.

**Note for paper- setters:**

1. The paper-setter will set 9 questions in all.
2. Question No. 1 shall consist of four short answer type questions evenly spread over the whole syllabus. Each answer should be of about 100-150 words. There will be no internal choice in this question.
3. Two Questions will be set from each unit.

Unit-I	Charlotte Bronte: <i>Jane Eyre</i>
Unit-II	Virginia Woolf: <i>To the Lighthouse</i>
Unit-III	Virginia Woolf: <i>A Room of One's Own</i>
Unit-IV	Doris Lessing: <i>The Golden Notebook</i>

**BOOKS RECOMMENDED:**

1. Ruthwen, K.K. *Feminist Literary Studies: An Introduction*.
2. Showalter, Elaine. *A Literature of Their Own*.
3. Gilbert, Sandra and Susan Gubar: *The Madwoman in the Attic*.
4. Moody, A.D. *Virginia Woolf*:
5. Bennett, Joan. *Virginia Woolf: Her Art as a Novelist*.
6. Reid, Su, ed. *Mrs. Dalloway and To the Lighthouse*.
7. Stubbs, Patricia. *Women and Fiction*.
8. Rubenstein, Robert. *The Novelistic Vision of Doris Lessing*

## M.A. English Semester 4

COURSE-XX: (Option-i)

Literature and Gender (Part-II)

(Gender)

Max. Marks : 80

Time :3 Hours

**Note: (To be printed in the question paper)**

1. Besides question no. 1, which is compulsory, a candidate shall choose one question from each of the four units, attempting five questions in all.
2. Each of the 5 questions carries 16 marks.

**Note for paper- setters:**

1. The paper-setter will set 9 questions in all.
2. Question No. 1 shall consist of four short answer type questions evenly spread over the whole syllabus. Each answer should be of about 100-150 words. There will be no internal choice in this question.
3. Two Questions will be set from each unit.

Unit-I	Simone de Beauvoir:	<i>The Second Sex</i> (Only the following sections are prescribed: "Introduction", "Book One", "Part-VII of Book Two")
Unit-II	Toni Morrison:	<i>Beloved</i>
Unit-III	Alice Walker:	<i>The Color Purple</i>
Unit-IV	Shashi Deshpande:	<i>That Long Silence</i>

**BOOKS RECOMMENDED:**

1. Ruthwen, K.K. *Feminist Literary Studies: An Introduction*.
2. Showalter, Elaine. *A Literature of Their Own*.
3. Gilbert, Sandra and Susan Gubar: *The Madwoman in the Attic*.
4. Gates, Henry Louis, Jr. and K.A. Appiah, Eds. *Toni Morrison: Critical Perspectives*.
5. ....eds. *Alice Walker: Critical Perspectives Past and Present*.
6. McKay, Nellie Y., Ed. *Critical Essays on Toni Morrison*.
7. Stubbs, Patricia. *Women and Fiction*.
8. Bates, Gerri. *Alice Walker : A Critical Companion*.

# BTM Semester 5

(Environment Sustainability)

BTM-504

Sustainable Tourism

Max Marks (internal) 20

Max Marks (External) 80

Objectives: To prepare the budding tourism professionals by providing basic knowledge about sustainable tourism related skills.

Approach: Lecture, group discussion, presentation, case studies etc.

Evaluation: As per the KUK norms for this course/ other papers. Mode of Paper setting: same as that of the other papers of this course.

Unit 1

Sustainable Tourism- meaning, definition, scope, sustainable development components, major issues in understanding sustainable development, principles of sustainable tourism management, aspects of ethics and social responsibility Key Stake holders.

Unit 2

Key issues of sustainable tourism development such as Ecotourism, carrying Capacity, de-marketing, fair pricing, transportation, education, role of industry, Role of public and private sector, community involvement and local control and linkages therein.

Unit 3

Three dimensions of Sustainable tourism i.e. environment, economic life, social aspects.

Environment-scope of the concept of environment, major potential impacts of tourism on environment, Economic Dimension-scope of the concept, and major impacts of tourism on it, Social Dimension-scope of the concept of socio-cultural environment and impacts of tourism on socio cultural issues.

Unit 4

Key actor in sustainable tourism- role of public sector, government bodies, local authorities, tourism industry, voluntary organizations host community, media, and tourists.

Books:

1. Swarbooke, J-sustainable Tourism Management-Rawat publication, Jaipur
2. William Theobald-Global Tourism: The Next Decade-Butterworth Heinemann.
3. <http://www.environment.gov.au/heritage/publications/strategy/pubs/steps.pdf>.
4. [http://sanctuaries.noaa.gov/management/international/pdfs/day1\\_concepts\\_manual.pdf](http://sanctuaries.noaa.gov/management/international/pdfs/day1_concepts_manual.pdf).
5. <http://www.unep.fr/shared/publications/pdf/IDTx0592xpA-TourismpolicyEfv.pAf>.
6. [http://www.nwhf.no/files/File/culture\\_fulltext.pdf](http://www.nwhf.no/files/File/culture_fulltext.pdf)
7. [http://www.rainforest-alliance.org/tourism/documents/tourism\\_practices\\_guide.pdf](http://www.rainforest-alliance.org/tourism/documents/tourism_practices_guide.pdf)
8. [http://unctad.org/en/Docs/ditctncd20065\\_en.pdf](http://unctad.org/en/Docs/ditctncd20065_en.pdf)
9. [http://ec.europa.eu/enterprise/sectors/tourism/files/docs/tsg/tsg\\_final\\_report\\_en.pdf](http://ec.europa.eu/enterprise/sectors/tourism/files/docs/tsg/tsg_final_report_en.pdf)
10. <http://www.visitcalifornia.com/media/uploads/files/edito>  
ricTTC%ZosustainableTo20Tourism%20Handbook.pdf

# B.A. Geography Semester 3

## Paper 201 Physical Geography-II

**(Environment and Sustainability)**

**Maximum Marks : 70**  
**External Assessment: 50**  
**Internal Assessment: 20**  
**Time : 3 Hours**

Note: *Question 1 is compulsory and comprises of Ten short answer type questions to be answered in 15-20 words. There will be eight long questions, two from each section. The candidate has to answer one question from each section. All five questions carry equal marks.*

### SECTION-A

1. Weather and Climate; Origin, composition and structure of atmosphere.
2. Insolation, Global heat budget, Horizontal and vertical distribution of temperature, inversion of temperature.

### SECTION-B

3. Atmospheric pressure- measurement and distribution, pressure belts, planetary winds, Monsoon, Jet Streams EL NINO- La Nina Phenomenon and Local winds.
4. Humidity- measurement and variables, evaporation, condensation, precipitation forms and types and distribution, hydrological cycle.

### SECTION-C

5. Air masses- concept and classification; Fronts- type and characteristics, Weather disturbances- tropical and extra-tropical cyclones.
6. Climate classification by Koppen; climatic change and global warming.

### SECTION-D

7. Configuration of oceanic floors and surface relief of Pacific, Atlantic and Indian Oceans; temperature and salinity of oceans.
8. Tides, waves and oceanic currents; circulation in Pacific, Atlantic and Indian Oceans; Oceanic resources.

#### Suggested Readings:

1. Barry, RG and Chorley R.J., Atmosphere, Weather and Climate, Routledge, 1998.
2. Critchfield, H., General Climatology, Prentice-Hall of India, 2002.
3. King, C. Oceanography for Geographers, Edward Arnold, London, 1975.
4. Trewartha, GT: An Introduction to Climate, Mc-Graw Hill, New York, 1981.
5. Trewartha, G.T., The Earth's Problems Climates, University of Wisconsin Press, USA.



## BAMC Semester 5

Paper-XXII (Fifth Semester)

**Media Laws and Ethics**

**(Professional Ethics)**

Time: 3 Hrs.  
Theory Marks: 80  
Internal Assessment: 20

Question paper for each theory paper will have two questions from each of the four units. Student will be required to answer any one question from each unit. Unit V of the question paper will have six questions out of which the student will be required to answer any four questions. Each unit will carry equal marks. Students have the option to answer some questions in Hindi and others in English but within an answer to a question the language should be pure (not bilingual) and correct.

### Unit-I

Constitution and freedom of speech and expression

Meaning of defamation

Contempt of court

Right to information

### Unit-II

Press and Registration of Books Act 1867

Working Journalists Act 1955

Copyright act 1957

Press Council Act 1978

### Unit-III

Cinematography Act 1952

Prasar Bharti Act 1990

Cable Television Networks (Regulations) Act 1995

Information Technology Act 2000

### Unit -IV

Invasion of privacy and vulgarity.

Advertising and ethics

Issues of ethics in media

## B. Sc. Medical Botany Semester 5

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### SEMESTER-V

Paper - II Ecology

**(Environment Sustainability)**

Internal Assessment-10

Max. Marks – 40

Time– 3 Hrs.

**Note:** Five questions to be attempted in all, selecting two questions from each unit. Question No. 1 will be compulsory (short answer type). Nine questions are to be set spread over the entire syllabus. All questions carry equal marks.

#### UNIT-I

**Introduction to Ecology:** Definition; scope and importance; levels of organization.

**Environment:** Introduction; environmental factors- climatic (water, humidity, wind, light, temperature), edaphic (soil profile, physico-chemical properties), topographic and biotic factors (species interaction).

Adaptations of plants to water stress and salinity (morphological and anatomical features of hydrophytes, xerophytes and halophytes).

**Population Ecology:** Basic concept; characteristics; biotic potential, growth curves; ecotypes and ecads.

#### UNIT-II

**Community Ecology:** Concepts; characteristics (qualitative and quantitative-analytical and synthetic); methods of analysis; ecological succession.

**Ecosystem:** Structure (components) and functions (trophic levels, food chains, food webs, ecological pyramids and energy flow)

**Biogeochemical Cycles:** carbon and nitrogen; hydrological (water) cycle.

**Phyto-geography:** Phyto-geographical regions of India; vegetation types of India (forests).

**Environmental Pollution:** Sources, types and control of air and water pollution.

**Global Change:** Greenhouse effect and greenhouse gases; impacts of global warming; carbon trading.

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#### Suggested Readings:

1. Odum, E.P. 1983: Basic Ecology, Saunders, Philadelphia.
2. Kormondy, E.J. 1996: Concepts of Ecology, Prantice-Hall of India Pvt. Ltd., New Delhi.
3. Mackenzie, A. et al. 1999: Instant Notes in Ecology, Viva Books Pvt. Ltd., New Delhi.

# B. Sc. Medical Zoology Semester 5

## SYLLABUS B.Sc. Part-III (Semester V & VI) SEMESTER - V

Paper-I : **Environmental Biology**

(Environment Sustainability)

External Marks : 40

Internal Assessment: 10

Time allowed : 3 Hours

*Note: Nine questions are to be set in all and the candidates are required to attempt five questions including the compulsory question.*

1. Question 1 is compulsory consisting of 10 parts (1.5 marks each) covering the entire syllabus. Answer to each part should not exceed 20 words.
2. Out of remaining eight, four questions are to be set from each section A & B, possibly splitting them in parts. Candidates are required to attempt four questions, two from each section.

### SECTION-A

1. **Basic concepts of ecology:** Definition, signification. Concepts of habitat and ecological niche.
2. **Factors affecting environment:** Abiotic factors (light-intensity, quality and duration), temperature, humidity, topography; edaphic factors; Biotic factors.
3. Introduction to major ecosystem of the world.
4. **Ecosystem:** Concept, components, properties and functions; Ecological energetics and energy flow-food chain, food web, trophic structure; ecological pyramids concept of productivity.
5. **Biogeochemical cycles:** Concept, reservoir pool, gaseous cycles and sedimentary cycles.

### SECTION-B

6. **Population:** Growth and regulation.
7. Concept of biodiversity and conservation of natural resources.
8. Migration in fishes and birds.
9. Parental care in animals.
10. **Population interactions:** Competition, predation, parasitism, commensalisms and mutualism.
11. **Environmental Pollution:** Air, water, soil and management strategies.

## [Syllabus for Environmental Science compulsory]

(Environment Sustainability)

### CORE MODULE SYLLABUS FOR ENVIRONMENTAL STUDIES FOR UNDER GRADUATE COURSES OF ALL BRANCHES OF HIGHER EDUCATION (AS APPROVED BY THE U.G.C.)

**UNIT-1:** The **Multidisciplinary** nature of environmental studies Definition; Scope and importance, Need for public awareness.

#### **UNIT-2: Natural Resources:**

Renewable and non-renewable 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 exploitation, 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 resource, land degradation, man induced landslides, soil erosion and desertification.

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- Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

#### **UNIT-3: Ecosystems**

- Concept of an ecosystem.
- 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).

#### **UNIT-4: 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 a mega-diversity nation.
- Hot-spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts.
- Endangered and endemic species of India.
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

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#### **UNIT-5: Environmental Pollution:**

##### **Definition**

- Causes, effects and control measures of: -
  - a. Air pollution
  - b. Water pollution
  - c. Soil pollution
  - d. Marine pollution
  - e. Noise pollution
  - f. Thermal 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.

#### **UNIT-6: 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.

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- Water (Prevention and Control of Pollution) Act.
  - Wildlife Protection Act. - Forest Conservation Act.
  - Issues involved in enforcement of environmental legislation.
  - Public awareness.

#### **UNIT-7: Human Population and the Environment**

- Population growth, variation among nations.
- Population explosion-Family welfare Programme.
- Environment and human health.
- Human Rights.
- Value Education.
- HIV/AIDS.
- Women and Child Welfare.
- Role of information Technology in Environment and human health.
- **Drugs and their effects; Useful and harmful drugs; Use and abuse of drugs; Stimulant and depressant**
- **drugs. Concept of drug de-addiction. Legal position on drugs and laws related to drugs.**
- Case Studies.

#### **UNIT-8: Field Work (Practical).**

- Visit to a local area to document environmental assets-river/forest/grassland/hill/mountain.
- Visit to a local polluted site-Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes, etc.

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### **SIX MONTHS COMPULSORY CORE MODULE COURSE IN ENVIRONMENTAL STUDIES: FOR UNDERGRADUATES**

**(Environment Sustainability)**

#### **Teaching Methodologies**

The Core Module Syllabus for Environmental Studies includes class room teaching and Field Work. The syllabus is divided into eight units. The first seven unit will cover lectures to enhance knowledge skills and attitude to environment. Unit eight is based on field activities which will provide students first hand knowledge on various local environmental aspects. Field experience is one of the most effective learning tools for environmental concerns. This moves out of the scope of the next book mode of teaching into the realm of role learning in the field, where the teacher merely acts as a catalyst to interpret what the student observes or discovers in his/her own environment. Field studies are as essential as class work and form an irreplaceable synergistic tool in the entire learning process.

Course material provided by UGC for classroom teaching and field activities be utilized.

The Universities/colleges can also draw upon expertise of outside resource persons for teaching purposes.

**Environmental Core Module shall be integrated into the teaching programmes of all undergraduate courses.**

#### **REFERENCES:**

1. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
2. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad -380013, India, Email: mapin@icenet. net (R).
3. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p.