University of Kota, Kota

ENVIRONMENTAL STUDIES & DISASTER MANAGEMENT- SESSION-2016-17

Scheme of Examination;
Time 3 Hrs. Max. Marks 100 Min Pass Marks 36

In pursuance of the directions of the Hon'ble Supreme Court of India and the University Grants Commission, New Delhi, the University of Kota has declared to introduce compulsory paper of "Environmental Studies" in Part- I of all streams (B.A./B.Sc./B.com.) etc. w.e.f. the session 2005-2006 and onwards. The marks secured in this paper will not be counted for working out the division. The candidate can clear this paper in three chances. Therefore all the candidates regular/Ex/Non-Collegiate appearing in Part-I of B.A./B. Sc and B.Com etc. examination of 2006 are required to appear and clear this paper and they must enter this paper in their examination forms. The code number of this paper is 5106.

The syllabus and scheme of examination is as under:
The question paper shall contain 100 objective type questions with multiple choice (four) answers. The student will be required to blacken the circle of correct choice of answer on the computer scan able OMR sheet with the help of H.B. pencil. Evaluation of the answer sheets be made with the help of computer. Four different types of question papers (A,B,C, and D) each containing 100 questions shall be printed. The student will be required to mark/write the type of question paper he is answering on the answer sheet, so that answers marked by him/her may be correctly assessed with the help of relevant key of answers, by the computer.
Each question shall carry one mark, with no negative marking. As such, one mark shall be awarded for the correct answer in each question.
Note:

1. The marks secured in this paper shall not be counted in awarding the division to a candidate.
2. The candidate has to clear compulsory paper in three chances.
3. Non appearing or absent in the examination of compulsory paper will be counted a chance.

Model syllabus for compulsory paper of "Environmental studies"
in the first year of B.A./B.Sc./B.Com. Courses

Unit 1. Introduction: the multidisciplinary nature of environmental studies: Definition, scope and important need for public awareness (5 Questions)

Unit 2; Natural Resources: Renewable and non-renewable resources, natural resources and associated problems. (20 questions)

A) Forest resources: use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest, and tribal people.
B) Water resources: use and over- utilization of surface and groundwater, 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.

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

Unit 3: Ecosystems (15 Questions)

- 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, type, characteristic, features, structure and function of the following ecosystem:
  a. Forest ecosystem b. grassland ecosystem c. desert ecosystem
  d. Aquatic ecosystems (ponds, streams, lakes)

Unit 4: Biodiversity and its conservation (15 Questions)

- Introduction – definition: genetic, species and ecosystem diversity.
- Biogeographically classification of India.
- Value of biodiversity: Consumptive use, productive use, social, ethical, aseptic 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.

Unit 5: Disaster Management & Environmental Pollution (15 Questions)

Disaster : Types – Natural and Manmade; Detailed study of the following – Earthquakes, Volcanic eruption, Landslides, Flood, Drought, Fire, Nuclear and Chemical disaster and their management.

- 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. Radioactive Pollution

Unit 6: Social Issues and the Environment 15 Questions)

- 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.
- Environmental protection Act.
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and Control of Pollution) Act.

- Wild life protection Act.
- Forest conservation Act.
- Issues involved in enforcement of environmental legislation.
- Public awareness.
- Road and safety measures.

Unit 7: Human Population and the Environment (15 Questions)

- 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
    - Case studies