

MEERUT INSTITUTE OF ENGINEERING AND TECHNOLOGY

NH-58, Delhi-Roorkee Highway, Baghpat Road, Meerut - 250005 U.P.

Sessional Examination/ Class Test - I: Odd Semester 2024-25

Course/Branch : B Tech. (OPI to OPI4)

Subject Name : ENVIRONMENT & ECOLOGY

Subject Code : BAS104

Semester : 1

Max. Marks : 60

Time : 120 min

CO-1 : On completion of this course, the student will be able to understand basic concepts related to ecosystem, EIA and need of sustainable development.

CO-2 : On completion of this course, the student will be able to understand about natural resources and impacts of human actions on natural resources.

Section - A (CO - 1) # Attempt both the questions # 30 Marks**Q.1: Attempt any SIX questions (Short Answer Type). Each question is of two marks. (2 x 6 = 12 Marks)**

- Explain in short the four segments of environment? (K2)
- Distinguish between food chain and food web giving examples? (K2)
- What do you understand by energy flow in an ecosystem? (K2)
- Why there is a need of public awareness to protect the environment? (K2)
- What do you understand by Eutrophication and Biomagnification? (K2)
- What are the environmental impacts of urbanization? (K2)
- What is the concept of sustainable development? (K2)

Q.2: Attempt any THREE questions (Medium Answer Type). Each question is of 6 marks. (3 x 6 = 18 Marks)

- What do you understand by the terms "Ecology" and "Ecosystem"? Illustrate the structure and functions of an ecosystem giving suitable examples. (K3)
- What are ecological pyramids? Explain various types of ecological pyramids giving suitable examples. Which ecological pyramid is always upright and why? (K4)
- What are the different regions/layers of atmosphere? Construct a table showing different regions of atmosphere and their characteristics. (K3)
- What is EIA? With the help of a flow chart, describe EIA process. (K3)
- Critically evaluate the environmental problems associated with modern agriculture and mining. (K5)

Section - B (CO - 2) # Attempt both the questions # 30 Marks**Q.3: Attempt any SIX questions (Short Answer Type). Each question is of two marks. (2 x 6 = 12 Marks)**

- What are natural resources? Classify them (K2)
- What are the advantages and limitations of nuclear energy? (K2)
- What do you mean by rainwater harvesting and watershed management? (K2)
- What are fossil fuels? Give examples (K2)
- What is Natural gas? Give its composition (K2)
- What is LPG? Give its composition and uses. (K2)
- Distinguish between conventional and non-conventional energy resources giving proper examples. (K2)

Q.4: Attempt any THREE questions (Medium Answer Type). Each question is of 6 marks. (3 x 6 = 18 Marks)

- What is Bio-geochemical cycle? Explain by drawing sketch Nitrogen cycle? (K3)
- Giving suitable examples, explain causes and effects of water borne and water induced diseases. (K4)
- Discuss the causes, impacts and remedial measures of Fluoride and Arsenic problem in drinking water. (K4)
- What are petroleum products? Discuss their advantages and critically examine the environmental impacts of petroleum products. (K4)
- How do we get electricity from coal? Critically evaluate the environmental problems associated with burning coal. (K5)