

**I B.Tech I Semester Supplementary Examinations, Feb/Mar 2014
ENVIRONMENTAL STUDIES**

**(Common to Mechanical Engineering, Electronics & Communication
Engineering, Chemical Engineering, Information Technology, Electronics &
Computer Engineering, Mining and Petroleum Technology)**

Time: 3 hours

Max Marks: 75

**Answer any FIVE Questions
All Questions carry equal marks**

1. Critically discuss what are the important objectives and the guiding principles of environmental studies? [15]
2. Discuss the reasons for land degradation and suggest steps to control it and explain what is Soil management, Shifting cultivation, Desertification and Man induced landslides. [15]
3. (a) Define ecosystem? and types of ecosystems in the nature.
(b) What are the general characteristics of an ecosystem? [8+7]
4. (a) Name a few birds and their contribution to the environment?
(b) What are the ecological services rendered by forests? Cite the examples of aesthetic, recreational, economic, historical, cultural and religious values of forest around your place. [5+10]
5. (a) How does marine pollution occur?
(b) What are the International activities to control marine pollution? [8+7]
6. (a) What are the powers provided to the central Government by the Environmental Protection Act, 1986?
(b) Write short note on environmental victims and their rehabilitation? [8+7]
7. (a) what is the Maximum carrying capacity and Exponential growth of population? Explain?
(b) what is your role for control of diseases in your local region? [8+7]
8. (a) Explain the types of components that are present in the solid waste material.
(b) What are the types of observations you find when you visited the polluted and non polluted zone. [8+7]

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1. Describe the guiding principles of environmental education? Give an account of formal and non-formal environmental education being imparted in India? [15]
2. (a) Is it necessary to construct multipurpose dams, if not suggest alternatives and discuss the impact of dams on forests and tribal people?
(b) Discuss any two case studies of people's movement against construction of dams. [8+7]
3. (a) What roles do autotrophs and heterotrophs play in the ecosystem?
(b) Explain the process of a succession in a newly formed pond ecosystem. [8+7]
4. (a) What are the major biogeographical regions in India.
(b) Enumerate the biosphere reserves of India. [8+7]
5. (a) How to control thermal pollution in Industries?
(b) Define noise pollution? How noise pollution can be controlled? [7+8]
6. (a) Discuss the salient features of Wild life (protection) Act, 1972
(b) Discuss the salient features of Forest (conservation) Act, 1980 [8+7]
7. (a) What do you mean by "Slum"? What kind of shelter does it provide?
(b) What are the objectives of UDHR by the United Nations? [8+7]
8. (a) Explain the types of components which are present in the solid waste material.
(b) What are the types of observations you find when you visited a polluted and non polluted zone. [8+7]

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1. Write a detailed note on the various governmental institutions and organizations in the field of public awareness and preservation of natural assets? [15]
2. Explain the use of solar energy for the purpose of Solar water heating, Solar cooking, Solar electric power generation, Solar green houses and Solar drying of agriculture animal products. [15]
3. Write note on:
 - (a) Nitrogen cycle
 - (b) Carbon cycle
 - (c) Hydrological cycle [5+5+5]
4. (a) Explain how the study of biodiversity is beneficial to human life.
(b) Explain about consumptive value of biodiversity. [8+7]
5. (a) How does degradation of pesticides take place in soil?
(b) What are the effects of using synthetic pesticides? [8+7]
6. (a) Do you think moral values prevent pollution in the environment? Explain your view?
(b) Define climate change? Explain the sources and effects of Global warming? [8+7]
7. Write notes on the following social security measures
 - (a) Life insurance
 - (b) Public Provident Fund
 - (c) Categorical benefits
 - (d) Employee's provident fund [5+5+5]
8. (a) What are the types forests in India? Define them and give proper examples.
(b) What is the role of river water in preparing the EIA report for an Industry? [8+7]

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1. (a) Describe the various conservation practices followed in the society and by individuals for preservation of environmental assets?
(b) Explain about “Urjagram and Model villages”. [8+7]
2. (a) Explain selective felling and what are the negative impacts of timber extraction? Explain what measures need to be taken for conserving forest wealth?
(b) “Forests act as factories of soils and often called as Earth lungs”. Explain the statement. [8+7]
3. (a) What are decomposers? Explain their role in the ecosystem.
(b) Discuss the major feature of a stream (river) that differs from that of a lake. [7+8]
4. (a) Explain about In-situ conservation of biodiversity.
(b) What is the medicinal value of biodiversity? [8+7]
5. (a) How is liquid waste managed?
(b) How municipal waste is handled in Indian cities and towns? [8+7]
6. (a) What are the objectives of Environmental Impact Assessment(EIA)?
(b) write short notes on
(i)Polluter pays principle(PPP)?
(ii)Carbon Trading [8+7]
7. Write the following
(a) occupational health hazards
(b) water born diseases
(c) Air born diseases [5+5+5]
8. (a) What are the types of farming carried out by tribal culture and explain the effects of such farming on mountains.
(b) What are differences you observe between the Eco Tourism Park and normal amusement park. [8+7]