I B.Tech I Semester Regular/Supplementary Examinations, Jan 2012 ENVIRONMENTAL STUDIES

(Common to Mechanical Engineering, Electronics & Communication Engineering, Chemical Engineering, Bio-Medical Engineering, Information Technology, Electronics & Control Engineering, Production Technology and Mining)

Time: 3 hours

Max Marks: 75

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

- 1. (a) Write a note on the importance of education on environmental issues and concerns.
 - (b) Describe the multidisciplinary nature of environmental studies. [7+8]
- 2. Discuss the importance of environmental studies with respect to the following statements.
 - (a) We live in a world wherein natural resources are limited.
 - (b) Green spaces and gardens are vital to the psychological and physical health of city dwellers. [7+8]
- 3. (a) What are the different tropic levels of organisms in an ecosystem ?
 - (b) Why is a complex ecosystem more stable than one with few species? [9+6]
- 4. (a) Write a brief note on biodiversity and ecosystem diversity.
 - (b) Explain the evolution of diverse species in an ecosystem. [15]
- 5. (a) Oceans are ultimate sink for most of the waste we produce. Explain.
 - (b) List off shore sources of Marine Pollution.
 - (c) Explain the effects of oil pollution on the ocean. [7+4+4]
- 6. Discuss briefly the provision of the following Acts:
 - (a) The Water (Prevention Control of Pollution) Act ,1974
 - (b) The Air (Prevention and Control of Pollution) Act, 1981
 - (c) The Wildlife Protection Act 1971
 - (d) The Forest Conservation Act of 1980 [4+4+4+3]
- 7. Explain the relation between population and economic growth from the point of view of sustainable development. [15]
- 8. (a) What is the methodology to be followed for study of a studying cause and effects of a polluted site? Write also the observations for various aspects and data to be collected.

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(b) Write about any polluted site you have visited and describe your findings in detail. [8+7]

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[6+9]

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- 1. Write a detailed note on the various institutions and organizations in the field of Environment Education and training, their activities and focal areas. [15]
- 2. (a) Write a detailed note on the problems arising out of overexploitation of forest resources.
 - (b) Describe how forest management is being done in India by citing any example.
- 3. (a) Briefly write about the different kinds of grasslands in India, also stating the main activities in such areas.
 - (b) What steps can be taken to conserve grasslands and what are the common reasons for destruction of these ecosystem? [7+8]
- 4. (a) What do you understand by endemic and endangered species ? How are they categorized? Give some examples of such species in India.
 - (b) List some common plant and animal species of India. [9+6]
- 5. (a) Enumerate the diseases and other problems caused by soil pollution.
 - (b) How do you control soil pollution? [8+7]
- 6. (a) Explain the phenomenon of Global Warming and the factors contributing to it.
 - (b) Explain the possible impacts of Global Warming on the food supply.
 - (c) What are the measures taken at Global level to control the emmission of Green House Gases? [5+5+5]
- 7. (a) Define Health Impact Assement.
 - (b) Outline some of the important strategies which must be taken up to minimize environmental hazards . [4+11]
- 8. (a) Describe how you would methodically record the elements and resources in an ecosystem and assess its functioning.
 - (b) Based on your filed visits, summarize your observations and findings of the water resource ecosystem in your region. [8+7]

1 of 1

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

- 1. Explain how the ideas and activities of some internationally known environmental thinkers has influenced environment policy. [15]
- 2. (a) Why is it important to conserve forest ecosystems?
 - (b) What are the ways in which forest resources are misused and what is the outcome? [8+7]
- 3. (a) Explain the term 'energy cycle' and how the organisms in the ecosystem are dependent on it.
 - (b) What is ecological succession? What are the different stages of development of an ecosystem? [8+7]
- 4. (a) Explain the concept of ex-situ conservation and illustrate your answer with examples.
 - (b) What is an Integrated Protected Areas and how does it help in conservation of biological diversity. [9+6]
- 5. (a) List the wastes that are prohibited from processing along with municipal solid waste. Discuss.
 - (b) Briefly describe the methods of heating and disposal of solid waste. [8+7]
- 6. (a) What are the major issues associated with resettlement and rehabilitation?(b) Bring out the main elements of water conservation. [8+7]
- 7. Explain with examples the links between the activities of man which are hazardous to human health and environment. [15]
- 8. List and write briefly the main characteristics of any five plant and five animal species which belong to your region or any area which you have studied. [8+7]

$1 \ {\rm of} \ 1 \\$

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Time: 3 hours

Max Marks: 75

Set No. 4

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

- 1. Mention briefly the contributions made by the following:
 - (a) BNHS
 - (b) Indira Gandhi
 - (c) Botanical Survey of India
 - (d) Madhav Gadgil
- 2. (a) Why is it important to conserve forest ecosystems?
 - (b) What are the ways in which forest resources are misused and what is the outcome? [8+7]

3. How do different development activities, including construction of dams, affect the various aquatic ecosystems and what actions need to be taken to conserve them?

[8+7]

[4+4+4+3]

- 4. (a) Explain the concept of in-situ conservation of biodiversity. Illustrate your answer with examples.
 - (b) What is an Integrated Protected Area System? How do these contribute to preservation of biodiversity? [9+6]
- 5. (a) What is significance of the term inversion in the dissipation of pollutants in the atmosphere ?
 - (b) List the meteorological parameters influencing the disposal of air pollutants in the atmosphere. [15]
- 6. (a) What are the ways in which individuals can help us in environmental management.
 - (b) Describe Narmada Bachao Andolan. [7+8]
- 7. (a) Explain the importance of value education in the context of the environment.
 - (b) Write a note on environmental values. [7+8]
- 8. Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied. [15]

1 of 1