II B.Tech II Semester Regular Examinations, Apr/May 2008 ENVIRONMENTAL STUDIES

(Common to Civil Engineering, Electrical & Electronic Engineering, Mechanical Engineering, Computer Science & Engineering, Chemical Engineering, Electronics & Instrumentation Engineering, Bio-Medical Engineering, Information Technology, Electronics & Control Engineering, Mechatronics, Computer Science & Systems Engineering, Metallurgy & Material Technology, Production Engineering, Bio-Technology and Automobile Engineering)

Time: 3 hours Max Marks: 80

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. [8+8]
- 2. Explain the resources from following sources on which man depends and explain briefly.
 - (a) Atmosphere
 - (b) Hydrosphere
 - (c) Lithosphere [6+5+5]
- 3. (a) What is a grassland ecosystem and what are the activities in grasslands?
 - (b) What activities of man lead to the destruction of grasslands and what are the consequences of this? [8+8]
- 4. Discuss any two:
 - (a) Productive value of Nature.
 - (b) Aesthetic value of Nature
 - (c) Optional value of Nature

[16]

- 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.

[8+4+4]

- 6. (a) Define watershed management and explain its objectives.
 - (b) Discuss various water conservation techniques that can be practiced by individuals. [8+8]
- 7. (a) Though population growth shows a global decline, there is still cause for worry. Explain why.

- (b) What are the reasons for differences in the rate of population growth in various countries. [8+8]
- 8. (a) Explain the aspects to be studied and the procedure for collecting information when you want to document the environmental features and resource assets of a water resource ecosystem during a field visit.
 - (b) Describe, in the format given above, the features of any such ecosystem you have studied during field visit. [8+8]

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Time: 3 hours Max Marks: 80

Answer any FIVE Questions All Questions carry equal marks

- 1. (a) Define "Environmental Studies"?
 - (b) Explain the components and scope of Environmental studies. [4+12]
- 2. (a) Explain the problems created by construction of large dams for irrigation and power generation .
 - (b) State briefly the components of comprehensive water management strategy . [8+8]
- 3. (a) Define ecosystem and list components of an ecosystem.
 - (b) Briefly explain the manner in which ecosystems are destroyed by human activities. [10+6]
- 4. (a) Write a brief note on biodiversity and ecosystem diversity.
 - (b) Explain the evolution of diverse species in an ecosystem. [16]
- (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+8]
- 6. (a) What are the major issues associated with resettlement and rehabilitation?
 - (b) Bring out the main elements of water conservation. [8+8]
- 7. Explain the push and pull factors which lead to migration from rural areas to urban centers. [16]
- 8. What are the problems encountered in the disposal of solid waste from various sources. Describe the outcome of poor management of solid waste, illustrating your answer with any case-study. [16]

Set No. 3

Code No: R05220105

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Time: 3 hours Max Marks: 80

Answer any FIVE Questions All Questions carry equal marks

- 1. Write a detailed note on the various institutions and organizations in the field of ?preservation of wildlife and knowledge of natural history. [16]
- 2. (a) Discuss in detail the water cycle.
 - (b) Write about sustainable water management.

[8+8]

- 3. (a) Define ecosystem and list components of an ecosystem.
 - (b) Briefly explain the manner in which ecosystems are destroyed by human activities. [10+6]
- 4. Discuss the aesthetic value of nature with respect to the following statements.
 - (a) A true wilderness experience is an incredible learning experience.
 - (b) The beauty of nature encompasses every aspect of the living and non-living part of our earth. [8+8]
- 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.

[8+4+4]

- 6. (a) Define watershed management and explain its objectives.
 - (b) Discuss various water conservation techniques that can be practiced by individuals. [8+8]
- 7. Write briefly about the steps that need to be taken as part of an overall plan for achieving global population stabilization. [16]
- 8. Explain the reasons for pollution of different types (water, air ,noise) that you have encountered in any region. Describe the problems created and suggest some remedial measures for the same.

 [8+8]

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Time: 3 hours Max Marks: 80

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. [8+8]
- 2. (a) What do you understand by biotic and a biotic parts of nature?
 - (b) Explain the interaction and interdependency of these. [6+10]
- 3. (a) Explain the concept of food chain, food web and ecological pyramid.
 - (b) Explain the water cycle and what are the problems that arise with disturbances to the water cycle? [10+6]
- 4. Discuss the aesthetic value of nature with respect to the following statements.
 - (a) A true wilderness experience is an incredible learning experience.
 - (b) The beauty of nature encompasses every aspect of the living and non-living part of our earth. [8+8]
- 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.

[8+4+4]

- 6. (a) What are the major causes of nuclear hazards and accidents.
 - (b) Discuss the ways to minimize radiation exposure in case of a nuclear accident. [8+8]
- 7. (a) Tuberculosis is one the environmentally related contagious diseases. Write briefly about the effects of this disease.
 - (b) What is the extent of spread of this disease in various parts of the globe? [6+10]
- 8. (a) Explain the step by step procedure to record and document the environmental features and resource assets of an ecosystem during a field visit.

Set No. 4

Code No: R05220105

(b) Describe, in the format given above, the features of any type of any ecosystem you have studied during field visit. [8+8]