

II B.Tech II Semester Regular Examinations, Apr/May 2007
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. Write a detailed note on the role of various organization in the field of the environment and their contribution to better management of resources. [16]
2. Explain the resources from following sources on which man depends and explain briefly.
 - (a) Hydrosphere
 - (b) Lithosphere
 - (c) Biosphere [5+5+6]
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) Why is it necessary to maintain biodiversity?
(b) What are the different services that are contributed in various ways by biodiversity? [16]
5. (a) List the types of hazardous wastes and their methods of disposal .
(b) Explain how nuclear fuel is processed and the inherent dangers of nuclear energy. [8+8]
6. (a) Define watershed management and explain the objectives of watershed management ?
(b) Suggest various methods for the improvement of irrigation efficiency by reducing loss due to evaporation
(c) Discuss various water conservation techniques that can be practiced by individuals. [6+4+6]
7. (a) Though population growth shows a global decline, there is still cause for worry. Explain why.

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Set No. 1

- (b) What are the reasons for differences in the rate of population growth in various countries. [8+8]
8. (a) Describe how you would methodically record the elements and resources in an ecosystem 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+8]

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**Answer any FIVE Questions
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1. Write a detailed note on the various institution and organization in the field of Environment Education and training their activities and focal areas . [16]
2. (a) What is the necessity for a rational land use policy as part of the environmental policy?
(b) Write briefly about the unequal consumption patterns of the developed and developing countries. [8+8]
3. (a) Explain the significance of preserving balance in various kinds of ecosystems. Illustrate with examples.
(b) Describe the structure and functions of an ecosystem. [8+8]
4. Enumerate some of the common animal species found in India and write in detail on any five of them. [6+10]
5. (a) Differentiate between Composting and Vermicomposting
(b) List the common organic materials that are suitable and unsuitable for composting .
(c) Discuss how the symbiotic relationship between algae and bacteria is useful in the treatment of sewage in an Oxidation Pond. [6+6+4]
6. (a) What is acid rain? What are the causes and effects of acid rain ?
(b) How can the formation of acid rain be avoided? [8+8]
7. Explain the position/ role of man in scheme of environment and vice versa. [16]
8. Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied. [16]

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**Answer any FIVE Questions
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1. Discuss the importance of nature with respect to the following statements.
 - (a) There is an urgent need to protect all living species.
 - (b) Nature provides us with various options on how we utilize its goods and services. [8+8]
2.
 - (a) What is the necessity for a rational land use policy as part of the environmental policy?
 - (b) Write briefly about the unequal consumption patterns of the developed and developing countries. [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) 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? [10+6]
5.
 - (a) What are the impacts of thermal pollution on global warming ?
 - (b) Why is coal based electricity used in the world ? [10+6]
6.
 - (a) Describe a case study of water conservation in India.
 - (b) Describe a case study of Rain water harvesting in India. [8+8]
7. Explain the relation between human health and environment. Cite some examples to illustrate your answer. [16]
8.
 - (a) Describe how you would methodically record the elements and resources in an ecosystem in an ecosystem and assess its functioning.

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- (b) Based on your filed visits, summarize your observations and findings of the water resource ecosystem in your region. [8+8]

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1. 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. [8+8]
2. (a) What do you understand by biotic and a biotic pouts of nature?
(b) Explain the interaction and interdependency of these. [6+10]
3. (a) Explain the significance of presening balance in various kinds of ecosystems. Illustrate with examples.
(b) Describe the structure and functions of an ecosystem. [8+8]
4. (a) Why is it necessary to maintain biodiversity?
(b) What are the different services that are contributed in various ways by biodiversity? [16]
5. (a) What are the impacts of thermal pollution on global warming ?
(b) Why is coal based electricity used in the world ? [10+6]
6. (a) Explain the concept of sustainable development.
(b) What are the major obstacles in the path of sustainable development in India?
(c) Explain the paradoxes in the definition of sustainable development. [6+5+5]
7. What are the environmentally related reasons for the occurrence of various types of cancer? How can these be prevented and controlled? [6+10]
8. Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied. [16]
