

Code No: R10106/R10

Set No. 1

I B.Tech I Semester Supplementary Examinations, July 2011

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. Write a detailed note on the role of various organizations in the field of the environment and their contribution to better management of resources. [15]
2. (a) Discuss in detail the water cycle.
(b) Write about sustainable water management. [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. (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) 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. (a) How is the occurrence of HIV and AIDS linked to environmental health ? How is it transmitted?
(b) How does it impact the life of affected individuals and how can it be prevented? [6+9]
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.
(b) Describe, in the format given above, the features of any type of any ecosystem you have studied during field visit. [8+7]

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Time: 3 hours

Max Marks: 75

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

1. Explain the different areas of environmental conservation to which people belonging to different disciplines can contribute. [15]
2. (a) Explain show agricultural practices implemented to increase the field from the land lead to formation of unproductive land.
(b) Explain the difference in consumption of resources by the countries of the developing and developed world. [8+7]
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? [9+6]
4. (a) What is genetic diversity and species diversity?
(b) List the various biogeographic regions of India. [9+6]
5. (a) Define air pollution and classify major sources of air pollution.
(b) List the major physiological effects of air pollution on plants and human beings. [8+7]
6. Why should natural ecosystems and various forms of species be protected ? How does indiscriminate exploitation of these areas lead to damage ? [15]
7. (a) Describe the problems created by the growing population of the earth.
(b) Explain briefly the pattern of global population growth in recent years which is causing alarm to environmental experts. [8+7]
8. Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied. [15]

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Set No. 3

I B.Tech I Semester Supplementary Examinations, July 2011

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. Write a detailed note on the various institutions and organizations in the field of ?preservation of wildlife and knowledge of natural history. [15]
2. Write a brief note on :
 - (a) Non-renewable resources
 - (b) Renewable resources
 - (c) Joint forest management
 - (d) Floods as a serious environmental hazard. [4+4+4+3]
3. (a) Define ecosystem and list components of an ecosystem.
(b) Briefly explain the manner in which ecosystems are destroyed by human activities. [9+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? [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 the relation between human health and environment. Cite some examples to illustrate your answer. [15]
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. [15]

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Set No. 4

I B.Tech I Semester Supplementary Examinations, July 2011

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. Explain the different areas of environmental conservation to which people belonging to different disciplines can contribute. [15]
2. (a) What are the problems arising due to over utilization of water resources?
(b) Explain the causes of floods and droughts and briefly state how such situation can be prevented. [8+7]
3. What are the different types of aquatic ecosystems? Write briefly about each, bringing out their unique characteristics, and the threats to these ecosystems. [6+9]
4. (a) What is India's position in the world with respect to biodiversity? What condition led to this?
(b) List the various plants and animals found in India which contribute to this status. [8+7]
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) Define watershed management and explain its objectives.
(b) Discuss various water conservation techniques that can be practiced by individuals. [8+7]
7. (a) Describe the problems created by the growing population of the earth.
(b) Explain briefly the pattern of global population growth in recent years which is causing alarm to environmental experts. [8+7]
8. (a) Describe how you would methodically record the elements and resources in an ecosystem and assess its functioning.
(b) Based on your field visits, summarize your observations and findings of the water resource ecosystem in your region. [8+7]
