

Code No: R10106/R10

Set No. 1

I B.Tech I Semester Supplementary Examinations, Sept - 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. Critically discuss what is sustainable agricultural method? Explain what are the implements required to introduce a green revolution and bring out the major problems we are facing today by the introduction of green revolution. [15]
3. (a) Differentiate between terrestrial ecosystem and aquatic ecosystem with reference to their structure and functions
(b) Discuss the ecological adaptation by natural selection. [8+7]
4. (a) Enumerate the biogeographical distribution of flora and fauna in India.
(b) What is the concept of in-situ conservation? [8+7]
5. (a) Define Pollution? What are pollutants and how do they effect the environment?
(b) What are the different types of air pollutants? Explain in brief? [8+7]
6. (a) Define sustainability? What are major concepts for sustainable development?
(b) Explain how consumerism has affected the present society? [8+7]
7. (a) Write a note on human rights and the environment
(b) Discuss the process of HIV infection and it mode of transmission? [7+8]
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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Set No. 2

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ENVIRONMENTAL STUDIES**

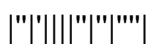
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Computer Engineering, Mining and Petroleum Technology)

Time: 3 hours

Max Marks: 75

**Answer any FIVE Questions
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1. (a) Define common property resources. Discuss in detail the different resources can be extracted by human being from four spheres of the earth?
(b) Differentiate the terms micro-environment and macro-environment and give the structure of lithosphere with labeled diagram? [8+7]
2. Explain fossil fuel, write a detailed note on the merits and demerits of any three exhaustible energy sources and their impacts on environment and man? [15]
3. (a) Explain briefly about different types of forest ecosystems.
(b) How do human activities lead to degradation of forest ecosystems. [8+7]
4. (a) What are the various strategies of ex-situ conservation of biodiversity?
(b) Describe the ecological significance of biodiversity. [8+7]
5. (a) Write short notes on
(i) Desalinization
(ii) Tapping of ground water
(b) What are the major effects of Fluorosis on human beings? [8+7]
6. (a) Define Rain water harvesting? Explain modern and ancient methods of Rain water harvesting to conserve water?
(b) Explain watershed management reclamation practices? [8+7]
7. What do mean by the following?
(a) Doubling time (b) Total fertility rate
(c) Zero population growth (d) Life-expectancy. [4+4+3+4]
8. (a) Explain the reason why the temperatures are less in the forest regions when compared to the urban areas.
(b) Write about the Environmental aspects observed in industry that you have visited. [8+7]



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Set No. 3

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Time: 3 hours

Max Marks: 75

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

1. Explain different types of environments and describe the three important constituents of physical environment? How will you differentiate between microclimate and weather. [15]

2. Discuss the impact of land use on environmental quality? Discuss soil erosion and discuss the factors which influence the extent of soil erosion with preventive measures. [15]

3. Explain why the following are important:
 - (a) Coral reefs
 - (b) Mangroves
 - (c) Coastal wetlands and estuaries [5+5+5]

4. (a) Enumerate the biogeographical distribution of flora and fauna in India. [8+7]
 (b) What is the concept of in-situ conservation?

5. (a) Write short note on high volume air sampler? [8+7]
 (b) Discuss the role played by vegetation in controlling air pollution?

6. (a) Do you think moral values can prevent pollution in the environment? Explain your view? [8+7]
 (b) Define climate change? Explain the sources and effects of Global warming?

7. (a) Write a note on human rights and the environment [7+8]
 (b) Discuss the process of HIV infection and its mode of transmission?

8. (a) Explain the effects of pollutants released into the receiving water bodies and atmosphere. [8+7]
 (b) Write about the case study of water pollution that you have visited .

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Set No. 4

I B.Tech I Semester Supplementary Examinations, Sept - 2014

ENVIRONMENTAL STUDIES

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Time: 3 hours

Max Marks: 75

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

1. Mention briefly the contributions made by the following? WII, NEERI, Rajendra Singh, Anna Hazare and MSSRF. [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. (a) What are the characteristic features of the marine ecosystem
(b) What is the role of oceans in terms of providing resources and regulating climate? [8+7]
4. (a) Explain how the poaching of wild life is a threat to the biodiversity?
(b) Explain about aesthetic value of biodiversity. [8+7]
5. (a) How does thermal pollution affect aquatic life? Explain the means to control thermal pollution?
(b) Write a note on cooling towers? [8+7]
6. (a) Define Rain water harvesting? Explain modern and ancient methods of Rain water harvesting to conserve water?
(b) Explain watershed management reclamation practices? [8+7]
7. (a) Write the aims and objective of 'family welfare programmes'
(b) Enumerate different programmes which have been formulated for women and child welfare. [7+8]
8. (a) What would be the probable impact of the forest ecosystem degradation on the environment?
(b) Explain different solid waste disposal methods employed in the site you visited. [8+7]
