

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-II [All Branch] examination June 2009

Subject Code :110007

Subject Name: Environmental Studies

Date:16-06-2009

Time: 10:30am-1:00pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define followings. Try any **SIX** **06**
(i) Environment (ii) Ecology (iii) Water Logging (iv) Deforestation
(v) Eutrophication (vi) Ecosystem (vii) Trophic Level
(viii) Carnivores (ix) Ecological Pyramid (x) Decomposers
- (b) Why is Environmental education provided to Engineers? What is relationship between Man and Environment? **04**
- (c) How is an ecosystem evolved? Give component parts of an ecosystem. **04**
- Q.2** (a) Give classification of Ecology and write in detail structure and functions of an ecosystem **07**
- (b) Narrate in detail energy flow in an ecosystem. Explain with one of the models of energy flow you have learnt in the class **07**
- OR**
- (b) Explain terms food chain and food web with example of Aquatic and Terrestrial ecosystem. **07**
- Q.3** (a) Describe importance of biochemical cycle in the biosphere. Describe carbon cycle with sketch in detail **05**
- (b) How is habitation pattern develop? List all environmental factors governing Human settlement **05**
- (c) How is balance maintained in ecosystem? Why is ecosystem with large population of one of species considered to be not healthy? **04**
- OR**
- Q.3** (a) Give reasons for validity of **Five** of followings with reasons **05**
1. Decomposers are very important in an ecosystem
2. Pollution increases with population
3. Carnivores are more affected by biomagnification of a toxicant.
4. Sabarmati river is one the polluted rivers of Gujarat
5. Salination and water logging is problem in South Gujarat
6. Dilution is not solution of water pollution
7. Well waters near sea are contaminated
8. Water harvesting is made compulsory in metro cities.
- (b) Give reasons for overpopulations and mention problems created by overpopulation. **05**
- (c) Describe in detail uses and overuses of water resources in India. **04**

- Q.4** (a) Give classification of natural resources . Why do we conserve natural resources? **04**
- (b) Give in detail different types of renewable resource available and used in India and problems because of overexploitation of them. **05**
- (c) What are importance of forest resources for Economic and ecological wealth of a country. **05**
- OR**
- Q. 4** (a) Describe Conventional and Non-conventional energy resources with Environmental Problems created by use of each of them **05**
- (b) Describe in detail types of forest resources and what are problems created by deforestations in India ? **05**
- (c) Describe in relationship of Population and food production. **04**
- Q.5** (a) What are causes of Environmental Pollution . List all Environmental Pollution and their sources in detail. **04**
- (b) Enlist parameters of water quality standards for drinking water in India specified by India **04**
- (c) Describe uses and Overuses of land What are causes effects of land pollution ? **06**
- OR**
- Q.5** (a) Define Noise Pollution. Describe all effects of Noise pollution. **05**
- (b) Enlist all Global Environmental pollution. Problems. Describe Global warming and Green House effects in detail. **05**
- (c) Describe effects of Air Pollution on Human. **04**

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