

GUJARAT TECHNOLOGICAL UNIVERSITY**B.E. Sem-II Examination June- 2010****Subject code: 110007****Subject Name: Environmental Studies****Date: 22 /06 /2010****Time: 02.30 pm – 05.00 pm****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) What is the meaning of environment? Discuss the relationship between different components parts of environment **07**
- (b) Explain the term “environmental degradation” and discuss the role of advanced technology in the degradation of environment. **07**
- Q.2** (a) Answer the following questions in a single statement: **07**
- (i) What are heterotrophs?
- (ii) What is meant by herbivores?
- (iii) What are pathogens?
- (iv) What is range of acceptable noise level for taking?
- (v) What is ozonosphere?
- (vi) When, the world environmental day is celebrated?
- (vii) What is fog?
- (b) Describe the concept of ecosystem using schematic diagram and explain the relationship among components that exist within ecosystem. **07**
- OR**
- (b) What do you understand by decomposers? Describe different types of decomposers explaining their functioning. **07**
- Q.3** (a) What is ecological pyramid? State its types and describe the pyramid of energy showing the energy flow. **07**
- (b) Enumerate the aquatic ecosystems and describe the structure of pond ecosystem stating its characteristic features. **07**
- OR**
- Q.3** (a) What do you understand by biogeochemical cycle? Draw the oxygen cycle and explain its working. **07**
- (b) Comment on the urban problems related to energy and discuss the effect of overpopulation over energy problems in Indian. **07**
- Q.4** (a) Enlist different surface and ground water sources and explain how overexploitations of water resources exaggerate the problem of availability of safe drinking water. **07**
- (b) What are various sources of energy? Explain in details any one non-conventional source of energy. **07**
- OR**
- Q.4** (a) Describe the merits and demerits of nuclear power energy and discuss the major concerns regarding its use for electricity generation in India. **07**

- (b) What are the causes of deforestation? Describe in brief some major engineering projects which caused deforestation problems in India. **07**
- Q.5** (a) What is potable water? Describe the different water pollutants which make water unfit for drinking. **07**
- (b) Enlist the common air pollutants stating their permissible limits as per ambient air quality standards. Discuss the effect of high carbon monoxide presence in atmosphere upon human beings. **07**
- OR**
- Q.5** (a) Explain the green house effect with the help of schematic diagram and compare the effect of different green house gases in global warming. **07**
- (b) What is ozone? How is it formed? Describe the main causes of depletion of ozone layer and briefly comment over control measures taken to prevent further ozone depletion at international level. **07**

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