

Seat No.: _____

Enrollment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- 1st / 2nd EXAMINATION (NEW SYLLABUS) – SUMMER 2016

Subject Code: 2110007

Date: 07/06/2016

Subject Name: Environmental Studies

Time: 02:30 PM to 5:00 PM

Total Marks: 70

Instructions:

1. Question No. 1 is compulsory. Attempt any four out of remaining Six questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Objective Question

(a) Choose the most correct answer of the following multiple choice questions. **07**

1. Which one of the following is not a fossil fuel?
(a) Natural Gas (b) Petrol (c) Coal (d) Uranium
2. During photosynthesis, autotrophs take in _____
(a) Oxygen (b) Carbon dioxide (c) Nitrogen (d) Sulphur
3. Rise in the sea level is due to _____
(a) Ozone depletion (b) Smog (c) Global warming (d) Acid rain
4. Increase in concentration of soluble salts in the soil is known as _____
(a) Desertification (b) Soil erosion (c) Bioaccumulation (d) Salination
5. Which air pollutant reduces the oxygen carrying capacity of the blood by combining with hemoglobin forming carboxy hemoglobin?
(a) SO₂ (b) CO (c) CO₂ (d) N₂O
6. The deaths of infants per 1000 births are known as _____
(a) Mortality rate (b) Birth rate (c) Infant mortality rate (d) Total fertility rate
7. GSDMA stands for _____
(a) Gujarat state development management authority
(b) Gujarat state disaster management authority
(c) Gujarat soil disaster management authority
(d) Gujarat surface disaster management authority

(b) Choose the most correct answer of the following multiple choice questions. **07**

1. The removal of carbon dioxide from the earth's atmosphere and the provision of long term storage of carbon in the terrestrial biosphere is known as _____
(a) Carbon sequestration (b) Carbon dating (c) Carbon fixing (d) Photosynthesis
2. In an aquatic ecosystem phytoplankton can be considered as a _____
(a) Consumer (b) Producer (c) Saprotrophic organism (d) Macro consumer
3. The sum total of the populations of the same kind of the organisms constitute _____
(a) Colony (b) Genus (c) Species (d) Community

4. Fluoride pollution mainly affects _____
(a) Kidney (b) Brain (c) Eyes (d) Teeth
5. Which of the following is a biodegradable substance
(a) Plastic (b) Oil (c) Pesticide (d) Garbage
6. Minamata disease is caused by severe _____ poisoning.
(a) Mercury (b) Lead (c) Arsenic (d) Chromium
7. In the atmosphere the layer above the troposphere is _____
(a) Stratosphere (b) Exosphere (c) Mesosphere (d) Thermosphere
- Q.2** (a) Explain the composition of atmosphere. (3)
(b) Write a short note on Sustainable development. (4)
(c) Why environmental education is important? Explain the impact of technology and development on environment. (7)
- Q.3** (a) Differentiate between Deforestation and Desertification. (3)
(b) Explain the various sources of water pollution. (4)
(c) Define the term Ecology and explain in detail the structure and function of an ecosystem. (7)
- Q.4** (a) Define the following terms:-Omnivores, Bioaccumulation and Eutrophication. (3)
(b) Write a short note on Rain water harvesting. (4)
(c) Describe the importance of Biogeochemical cycles in biosphere. Explain Nitrogen cycle with the help of a diagram. (7)
- Q.5** (a) Define the following terms:-Smog, Environmental ethics and Food web (3)
(b) Explain forest ecosystem. (4)
(c) Define the term Acid rain. Discuss the various causes and effects of acid rain on the environment. (7)
- Q.6** (a) Differentiate between renewable and non renewable resources. (3)
(b) Explain the environmental problems posed by population explosion. (4)
(c) Explain the term land pollution. Discuss in detail the causes and effects of land pollution. (7)
- Q.7** (a) Explain the role of decomposers in the ecosystem. (3)
(b) Explain the various causes and effects of thermal pollution. (4)
(c) Explain the various aims and objectives of The Water (Prevention & Control of Pollution), Act 1974. (7)
