

**B. Sc BIOTECHNOLOGY**  
**Second Semester**  
**ENVIRONMENTAL STUDIES**  
**(BBT- 06)**

**Duration: 3Hrs.**

**Full Marks: 70**

**Part-A (Objective) =20**  
**Part-B (Descriptive) =50**

**PART-B (Descriptive)**

**Duration: 2 hrs. 40 mins.**

**Marks: 50**

**1. Answer the following questions (Any five):**

**2 x 5=10**

- a) What is Commensalism? Give an example.
- b) What do you mean by the term "Limnology"?
- c) Differentiate between Global Warming and Climate Change.
- d) What is Ecosystem? Give one example of aquatic ecosystem.
- e) What are Intellectual Property Rights?
- f) Differentiate between renewable and non-renewable resources.
- g) What is Environmental Impact Assessment?

**2. Answer the following questions (Any five):**

**3 x 5=15**

- a) What is Greenhouse Effect? Mention the main green house gases with their sources.
- b) Write a short note on water pollution cause by heavy metal.
- c) Write a note on ecological value of biodiversity.
- d) Why environmental science is called multidisciplinary science?
- e) What are the causes of depletion of mineral resources?
- f) How flood can be considered as disaster? What are the control measures of flood?
- g) What are the harmful effects of noise pollution on human health?

**3. Answer the following questions (Any five)**

**5 x 5=25**

- a) Discuss temperature as an environmental factor.
- b) What is biogeographical region? Describe briefly different biogeographical regions of India.
- c) What is ozone hole? What are the effects of ozone layer depletion on environment?
- d) Write a short note on family welfare programme in India.
- e) What is biogeochemical cycle? Discuss the nitrogen cycle with suitable diagram.
- f) Explain the process of waste water treatment with proper flow chart.
- g) What is rain water harvestment? Discuss the techniques involved in the process of rain water harvestment.

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*(The figures in the margin indicate full marks for the questions)*

**Duration: 20 minutes**

**Marks – 20**

**PART- A (Objective)**

**Time: 20 mins**

**Total Marks: 20**

**I. Choose the correct answer from the following:**

**1×20=20**

1. Which of the following constitute biotic factor?
  - a. Intraspecific relationship
  - b. Biological relationship
  - c. Community relationship
  - d. Interspecific relationship
  
2. Which of the following is the unit of measurement of light?
  - a. Foot candle
  - b. Candle
  - c. Torr
  - d. Pascal
  
3. Homoeothermic animals –
  - a. Maintain their body temperature same as their body temperature same as that of the environment.
  - b. Fluctuates their body temperature with fluctuation in environmental temperature.
  - c. Maintain their body temperature at a constant level irrespective of environmental temperature.
  - d. None of the above.
  
4. The interrelationship of all the organisms belonging to producers, consumers and decomposers classes in a given habitat is called
  - a. Food-chain
  - b. Food-web
  - c. Food-cycle
  - d. Ecosystem
  
5. The energy flow in organisms is-
  - a. Cyclic
  - b. Unidirectional
  - c. Radiant
  - d. None of the above

6. The complexity of any food web depends upon
- a. Diversity of organisms in the system
  - b. Variety of population
  - c. Diversity in gene pool
  - d. All the above
7. O<sub>3</sub> depletion is caused by the increase in the level of
- a. Water vapour
  - b. Chlorofluoro carbon
  - c. Oxygen
  - d. Carbon monoxide
8. Population of two species may interact in several ways. One of these called proto-cooperation occurs when
- a. One population inhibits the other
  - b. Interaction is favourable to both but not obligatory
  - c. Interaction is favourable to both but obligatory
  - d. Neither population affects the other
9. Drought is an example of
- a. Terrestrial hazard
  - b. Cumulative hazard
  - c. Extra terrestrial hazard
  - d. Abnormal hazard
10. Malaria is a
- a. Water borne disease
  - b. Water based disease
  - c. Water related vector disease
  - d. Water scarcity disease
11. In which of the following regions, O<sub>3</sub> layer depletion is more
- a. USA
  - b. Asia
  - c. Antarctica
  - d. Arctic
12. In aquatic ecosystem, Periphyton are
- a. Floating organisms
  - b. Bottom organisms
  - c. Attached to other plants
  - d. Resting or swimming organisms on the surface
13. Biological treatment is the \_\_\_\_\_ treatment of waste water.
- a. Primary
  - b. Secondary
  - c. Tertiary
  - d. None of the above
14. Which is the most largest form of disaster in India
- a. Earthquake
  - b. Flood
  - c. Landslide
  - d. Drought

