

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?

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. O₃ 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 protocooperation occurs when
- a. One population inhibit 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, O₃ 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

15. National Ambient Air Quality Monitoring programme was launched in the year _____.

- a. 1972 b. 1984 c. 1987 d. 1992

16. Itai-Itai disease in Japan was caused due to _____ pollution.

- a. Lead b. Cadmium
c. Mercury d. Methyl isocyanide

17. Audibility of human ear ranges from

- a. 20 -200 Hz b. 20 – 20000 hz
c. 200 – 2000 hz d. 20 – 20000 db

18. Ambient Quality Standards for SPM in residential area is _____ mgm.

- a. 500 b. 200 c. 300 d. None of the above

19. _____ of world primary fuel is shared by oil

- a. 20.9 % b. 38.1 % c. 25 % d. 6.3 %

20. Which of the following is a secondary air pollutant

- a. O₃ b. PAN c. H₂SO₄ d. All the above
