

**B.Sc. MICROBIOLOGY
SECOND SEMESTER
ENVIRONMENTAL STUDIES
BMB-204**

Duration : 3 hrs.

Full Marks: 70

Time : 20 min.

[PART-A: Objective]

Marks : 20

Choose the correct answer from the following:

1X20=20

1. What is the scope of environmental studies?
 - a. Social awareness
 - b. Understand real life situation
 - c. Sustainable development
 - d. All of above
2. Due to ---- nature, environmental studies is related to others disciplines.
 - a. conservation specific
 - b. interdisciplinary
 - c. multidisciplinary
 - d. both interdisciplinary and multidisciplinary
3. What is the present human population in the world?
 - a. 7.9 billion
 - b. 796 billion
 - c. 600 crore
 - d. 150 million
4. How much percentage of geographical area of a country should be under forest?
 - a. 25
 - b. 30
 - c. 33
 - d. 50
5. Narmada Bachao Andolan is associated with the construction of
 - a. Damodar Dam
 - b. Koyna Dam
 - c. Gandhi Sagar Dam
 - d. Sardar Sarovar Dam
6. Amount of carbon dioxide present in atmosphere is
 - a. 0.4%
 - b. 0.04%
 - c. 0.004%
 - d. 4%
7. The source of energy in an ecosystem is
 - a. Sunlight
 - b. Decomposition of plant body by bacteria
 - c. Fermentation by sugar
 - d. None of the above

8. Which of the following is not a greenhouse gas?
- Carbon monoxide
 - Water vapour
 - Carbon dioxide
 - None of above
9. The part of earth and atmosphere where organisms live is called
- Biotic
 - Lithosphere
 - Biosphere
 - None of above
10. One big tree with many birds and insects in a large open area
- can be an example of an ecosystem
 - can't be an ecosystem due to absence of other animals
 - can't be an ecosystem due to absence of many trees
 - Both (b) and (c) are correct
11. In terms of food chain and food web, conditions for more stable ecosystem are
- Short food chain, simple food web
 - Long food chain, simple food web
 - Short food chain, complex food web
 - Long food chain, complex food web
12. Which ecological pyramid is/are always upright in nature?
- Pyramid of energy
 - Pyramid of biomass
 - Pyramid of number
 - All of above
13. Thermal pollution is related to
- Air
 - Water
 - Soil
 - Noise
14. Final stage in ecological succession is
- Death
 - Establishment
 - Climax
 - All of above
15. The average surface temperature of the Earth is about ---°C.
- 15
 - 24
 - 33
 - 18
16. Which act was enacted to safeguard environment by Government of India after Bhopal Gas tragedy?
- Water (Prevention and Control of Pollution) Act 1974
 - Air (Prevention and Control of Pollution) Act 1981
 - Environment (Protection) Act 1986
 - All of above
17. Rain water is slightly acidic in nature. It is due to
- Acid rain
 - Carbon dioxide gas
 - Carbon monoxide gas
 - Oxides of sulphur and nitrogen
18. The highest temperature is recorded
- at midday
 - in the afternoon
 - in the late evening
 - whole day

19. Ozone depletion is caused due to increase of

- a. Water vapor
- b. Carbon dioxide
- c. Chlorofluorocarbon
- d. All of above

20. Human are ----- in an ecosystem

- a. owner
- b. producer
- c. consumer
- d. All of above

(PART-B : Descriptive)

Time: 2 HRS 40 MINS

Marks : 50

[Answer question no.(1) & any four (4) from the rest]

1. What do you mean by air pollution? Discuss causes and consequences of air pollution. 2+3+5=10

2. Write on genetic, species and ecosystem diversity. What is biodiversity hotspot? 8+2=10

3. What is an ecosystem? Discuss structure and functions of an ecosystem. 2+4+4=10

4. 'India is a mega diversity nation'. Justify the statement with reference to rich biodiversity of India. 10

5. Write short notes on : 5+5=10
 - (a) Acid rain
 - (b) Point source and non point source of pollution

6. Write about duties and responsibilities of students in environmental protection, resource conservation and pollution control. 10

7. What is a food chain? Categorize it with suitable instances. 4+6=10

8. How solar energy could be harnessed? State the disadvantages associated with solar energy. 7+3=10

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