

B.Tech. DEGREE EXAMINATION, DECEMBER 2015
First Semester

15CY102 – PRINCIPLES OF ENVIRONMENTAL SCIENCE
(For the candidates admitted during the academic year 2015 – 2016)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 45 minutes and OMR sheet should be handed over to hall invigilator at the end of 45th minute.
- (ii) **Part - B** and **Part - C** should be answered in answer booklet.

Time: Three Hours

Max. Marks: 100

PART – A (20 × 1 = 20 Marks)

Answer ALL Questions

1. The development of a bare area without any life form is called as
(A) Sere (B) Reaction
(C) Nudation (D) Ecesis
2. Energy flow in an ecosystem is
(A) Unidirectional (B) Cyclic
(C) Multidirectional (D) Sequential
3. Biotic environment does not include
(A) Plants (B) Animals
(C) Air (D) Decomposers.
4. Pyramid of Energy is always
(A) Inverted (B) Upright
(C) Spindle shaped (D) Inverted and upright
5. Atmospheric layer near the surface of the earth in
(A) Lithosphere (B) Mesosphere
(C) Troposphere (D) Stratosphere
6. All the pollutants given in the list are secondary pollutants except
(A) O₃ (B) PAN
(C) Particulate (D) CO₂
7. The effect of ozone layer depletion is
(A) Skin cancer (B) Forest fire
(C) Draught (D) Acid rain
8. _____ are used to remove particulate
(A) Gravity settling chambers (B) Trickling filters
(C) Meshes (D) Whatman papers
9. An increase in nutrient level is known as _____.
(A) Flocculation (B) Screening
(C) Eutrophication (D) Sedimentation

10. ----- affects marine ecosystems.
 (A) Land dumping (B) Ocean Dumping
 (C) Air disposal (D) Incineration
11. The larger proportion of organic matter in solid waste needs _____
 (A) Incineration (B) Biological treatment
 (C) Autoclaving (D) Pyrolysis
12. _____ are used to remove waste heat from hot water.
 (A) Cooling towers (B) Cyclone collectors
 (C) Electrostatic Precipitators (D) Wet scrubbers
13. The species that are confined to a particular geographical area are called _____ species.
 (A) Endangered (B) Endemic
 (C) Extinct (D) Alien
14. Which of the following is in-situ conservation strategy?
 (A) National parks (B) Zoo
 (C) Botanical garden (D) Seed Banks
15. In India, the critically endangered species is
 (A) Peacock (B) Tiger
 (C) Lion (D) Leopard
16. Aesthetic value includes
 (A) Parks (B) Fruits & Vegetables
 (C) Rubber (D) Honey
17. The environmental protection Act was enacted in the year
 (A) 1986 (B) 1994
 (C) 1974 (D) 1975
18. The main objective of Vienna convention was to discuss
 (A) Sustainable development (B) Control of population growth
 (C) Ozone layer depletion (D) Control of green house gas emission
19. _____ is not a green house gas
 (A) CH₄ (B) CO
 (C) Water vapour (D) Cl₂
20. The earth summit was held at
 (A) Kyoto (B) Stockholm
 (C) Riode Janeiro (D) Johannesburg

PART – B (5 × 4 = 20 Marks)
Answer ANY FIVE Questions

21. Explain the different types of food chain with suitable examples.
22. Write the sources and effects of radioactive pollution.

23. Write a note on species diversity.
24. Discuss Autoclaving
25. List out the functions of central pollution control board.
26. Explain water cycle.
27. Define the following:
(i) Indicator species (ii) Keystone species

PART – C (5 × 12 = 60 Marks)
Answer ALL Questions

28. a. Discuss in detail about ecological succession.
- (OR)**
- b. Define: Environmental education. Discuss the objectives and importance of environmental education.
29. a. Give an account on sources and effects of air pollution.
- (OR)**
- b. Explain the following:
(i) Ozone layer depletion (ii) Green house effect.
30. a. Explain Waste Water Treatment.
- (OR)**
- b. Discuss in detail about Solid Waste Management.
31. a. Explain in detail about the values of biodiversity.
- (OR)**
- b. Write in detail about ex-situ conservation.
32. a. Explain about rio declaration.
- (OR)**
- b. Discuss in detail about National Concern for environment.

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