

End Semester Examination-(Dec.-2017)
B.Tech. Information Technology, Third Semester
Environmental Science(EVS-S101)

Time: Three Hours (Shift 1)

Max. Marks: 40

Note: All the Sections are compulsory

A. Multiple Choice Questions (Attempt all the questions) 1x10

1. Chemical weathering of limestone gives rise to

- a. potassium rich soils
- b. Calcium rich soil
- c. Lateritic soil
- d. quartz

2. Earth fresh water reserve are mere

- a. 2.6%
- b. 5.4%
- c. 50%
- d. 70%

3. Water balance is maintained by the other continuous interchange of water between Earth and atmosphere via

- a. Precipitation
- b. Evaporation
- c. Transpiration
- d. All of the above

4. The world's most productive ecosystems are

- a. Deserts
- b. Mountains
- c. Coral reefs
- d. Rainforests

5. Greenhouse gases include

- a. Methane
- b. Nitrous oxide
- c. Carbon dioxide
- d. All of the above

6. While Biodiversity inventories are prepared greater emphasis is laid on

- a. Endangered species
- b. Endemic species
- c. Charismatic species
- d. All of these.

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7. A species may be classified as rare or common based on

- a. Geographical range
- b. Habitat choice
- c. Population size
- d. All of these

8. The best source of phosphorous in an ecosystem

- a. Plants
- b. Animal Biomass
- c. Soil
- d. None of the above

9.” Hot spots are areas

- a. Extremely rich in species
- b. With high endemism
- c. Extremely scare in species
- d. Under constant threat

10. Which of the following is fresh water resource

- a. Pond
- b. Ocean
- c. Wetland
- d. Iceberg

B. State TRUE and FALSE

1x5

11. Ecosystem is a set of natural interactions.

12. Biodiversity is a collective expression of variations in life.

13. The Earliest organisms were single-celled and appeared like bacteria.

14. Coal is fossilized biomass that is 300-100-million-year-old.

15. E-wastes are known to contain residues of heavy metals

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C. Fill in the blanks

1x8

16. Grass → Grasshopper → ... → snake → Peacock

17. Plant flower → → lizard → Eagle

18. Grass → ----- → Foxes → -

19. Environmental inventories are created using.....and
data.

20. Two commonly adopted forms of biological diversity conservation are
and.....

21. The best example of an island species that went extinct during historical times is
 the.....

22. Coastal landscapes are vulnerable to..... and.....

23. GBIF means-----

**D. Problem Solving questing
 marks**

2 x2

24. In a study that enumerated road kill along highway, there were 10 mammals, 5 birds, 12 reptiles and 10 amphibians. What will you infer from the result? What will you recommend to the highway department?

25. There are two soil types at sites not too far from each other. Soil A having a greater percentage of sand than soil B, and soil B having more clay and organic matter than soil A; all other factors being similar Which of the following is NOT true?

- a. A will allow rain water to infiltrate into the soil faster than B
- b. A will be able to store more nutrients than B
- c. B holds more water after the rains over than A
- d. B will be more prone to puddles(pools) during heavy rain than A.

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E. Concept Check (50 words), Attempt any four of the following

2x4 marks

26. Is it correct to state that ecosystems place the non-living and living environments within a nutshell?
27. Wetlands are the most abused of aquatic habitats. Explain.
28. India has some of the finest and most comprehensive of environmental conservation laws. Do you think they are adequately enforced?
29. UN convention on Biological Diversity is the most comprehensive of environmental guidelines that the world has adopted. Explain why?
30. No ecosystem is complete without photosynthesis. Explain.
31. India has drafted and enacted 200 laws and Acts that pertain to environment conservation, enlist oldest laws with brief annotation.

F. Long Answer type (minimum 200 word- Essay type) 5

31. What are the goals of Biosphere reserves? What is an environmental inventory? Briefly state about Biodiversity information resources, databases, inventories, repositories and IT resources.