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**J – 4883**

**Reg. No. :** .....

**Name :** .....

**Fourth Semester M.Sc. Degree Examination, May 2020**

**Botany**

**BO 242 b – ENVIRONMENTAL BIOLOGY**

**(2013 Admission Onwards)**

Time : 3 Hours

Max. Marks : 75

I. Answer **all** questions.

1. System ecology.
2. Ecological pyramid.
3. Ecological balance.
4. Laws of energy flow.
5. Biotic and abiotic compartments of earth.
6. Topographic factors.
7. r and k selection.
8. Stratification.
9. Food web.
10. Sustainable design.

**(10 × 1 = 10 Marks)**

P.T.O.



II. Answer the following questions in not more than 50 words

11. (a) Explain the causes and suggested remedies for global warming.

OR

(b) Explain micro climate.

12. (a) Explain bioremediation.

OR

(b) Explain biogeochemical cycling.

13. (a) Impact of salinity stress in ecosystem.

OR

(b) What is eutrophication?

14. (a) What is ecological imbalance and what are its implications?

OR

(b) Explain the components of an ecosystem.

15. (a) Explain population dynamics in an ecosystem.

OR

(b) Explain ecological pyramid with emphasis on energy flow.

**(5 × 2 = 10 Marks)**

III. Answer the following questions in not more than **150** words.

16. (a) Explain the design and advantages of bio gas plants.

OR

(b) Major technologies used in biological waste disposal.



17. (a) What is remote sensing?

OR

(b) How polymeric recycling is achieved?

18. (a) Explain molecular ecology.

OR

(b) Explain Kyoto protocol.

19. (a) Explain trophic relations in an ecosystem.

OR

(b) Explain the role of osmotic potential and temperature in an ecosystem.

20. (a) Explain the factors responsible for land degradation.

OR

(b) Describe ecosystem evolution.

21. (a) Explain bio magnifications.

OR

(b) How polluted water is recycled?

22. (a) Differentiate between turn over time and turnover rate in an ecosystem.

OR

(b) Explain ecosystem modeling.

**(7 × 5 = 35 Marks)**



IV. Answer the following questions in not more than **250** words

23. (a) Discuss the environmental issues in relation with the non-biodegradable plastic accumulation.

OR

- (b) How the industrially generated wastes are recycled in an industrial area without affecting its micro climate?
24. (a) What are the major steps and your recommendation for reducing and recycling municipal waste?

OR

- (b) Discuss the role of different international and national environment protection agencies that actively participate in environment protection.

**(2 × 10 = 20 Marks)**

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