

M.Sc. 3rd Semester Examination, 2022

BOTANY

(Ecology/Environmental Biology)

PAPER – BOT-303

Full Marks : 40

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

UNIT – I

(Ecology)

A. Answer any two from the following : 2 × 2

1. What is Hypervolume niche ?

(Turn Over)

2. What is meant by *Ex-situ* conservation ?
3. Define Deep ecology.
4. What is pneumatophore ?

B. Write short notes on the following any *two* : 4×2

5. Polyclimax concept
6. Ecological efficiency
7. Phytoremediation
8. *r* and *k* selection.

C. Answer any *one* question of the following : 8×1

9. Elaborate different adaptive features found in Halophytes. Briefly discuss the mangrove ecosystem. $4 + 4$
10. Define energy flow. Differentiate between grazing and detritus food chain. Briefly describe a method to measure primary production. $2 + 2 + 4$

UNIT – II

(*Environmental Biology*)

D. Comment on the following (any *two*) : 2×2

11. Acid rain

12. Photochemical smog

13. BOD

14. EIA.

E. Write short notes on the following (any *two*) : 4×2

15. Bioremediation

16. Ramsar site

17. Greenhouse effect

18. Primary and secondary pollutants.

F. Answer any *one* of the following : 8×1

19. Differentiate between ozone depletion and

ozone hole formation. Discuss different factors that contributes to the ozone hole formation.

2 + 6

20. (i) Describe different environmental movements that occurred in India.

(ii) Mention some bioindicators of water pollution.

6 + 2