D 52926 (Pages : 2) Name...

Reg. No....................................

THIRD SEMESTER B.VOC. DEGREE EXAMINATION
NOVEMBER 2023

Common Course

A11—BIODIVERSITY – SCOPE AND RELEVANCE

Time : Two Hours and a Half   Maximum : 80 Marks

Section A

All questions can be answered.
Each question carries 2 marks.
(Ceiling 25 marks)

1. Define Biodiversity.

2. What is genetic diversity ?

3. Give the names of therapeutic agents derived from micro-organisms through bioprospecting.

4. What are the ecological roles of protists in aquatic environments ?

5. What is Climate ?

6. What are the indirect economic benefits of biodiversity ?

7. Why is species diversity important for ecosystems ?

8. What is remote sensing ?

9. Describe the key processes responsible for species extinction.

10. Define in situ conservation.

11. Why are seed banks considered valuable for preserving plant diversity ?

12. Name the biodiversity hotspots in India ?

13. What are the categories used in the IUCN Red List ?

14. How does biodiversity contribute to aesthetic experiences ?

15. What is agro biodiversity ?

Turn over

Section B

All questions can be answered.
Each question carries 5 marks.
(Ceiling 35 marks)

16. How does agricultural intensification contribute to the loss and homogenization of ecosystems ?

17. How does bio-prospecting contribute to the discovery of novel therapeutic agents ?

18. Differentiate between background extinction and mass extinction events.

19. Discuss the role of bacteria in maintaining ecosystem health.

20. What is the ethical significance of biodiversity conservation ?

21. Differentiate between national parks and wildlife sanctuaries.

22. What is the purpose of gene banks in conservation ?

23. Briefly explain the role of botanical gardens in conservation.

Section C

Answer any **two** *of the following questions.*
Each question carries 10 marks.

24. How do conservation efforts for genetic diversity contribute to overall ecosystem health ? Explain with suitable examples.

25. What are the factors causing loss of genetic, species and ecosystem diversity ? Explain.

26. Explain the need for inventorying and monitoring of biodiversity ? What are the methods of inventorying and monitoring of biodiversity ? Mention their limitations.

27. Discuss the impact of climate change.

$(2 \times 10 = 20 \text{ marks})$