

**Total Pages—5 PG/IIIS/BOT/304.1 & 304.2/24
(CBCS)**

M.Sc. 3rd Semester Examination, 2024

BOTANY

PAPER—BOT-304.1 & 304.2(CBCS)

Full Marks : 50

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*

Illustrate the answers wherever necessary

PAPER—BOT-304.1.

UNIT – I

GROUP – A

Answer any two questions from the following :

2 × 2

(Turn Over)

(2)

1. What is the role of decomposers in ecosystem ?
2. What is the full form of WRI and IUCN ?
3. How many biodiversity hotspots are there in the world ? Who coined the term hotspot ?
4. Name any two true mangrove plants found in the world.

GROUP – B

Write short notes on any two of the following :

4 × 2

5. Paris Agreement.
6. Forest Conservation Act.
7. Mountain Ecosystem.
8. Silent valley movement.

(3)

GROUP – C

Answer any **one** question from the following :

8 × 1

9. Discuss the structure and function of forest ecosystem. 8
10. Define Biodiversity. How many categories of biodiversity are there ? Explain alpha, beta and gamma diversity with examples. 1+2+5

PAPER – BOT-304.2

(Plants and Society)

UNIT – II : *Biotechnology and Human Welfare*

GROUP – A

Answer any **two** questions from the following :

2 × 2

11. What are hops ?
12. What is the nature of xylogenesis in callus culture ? State its significance.
13. Write down the percentage of alcohol present in beer.
14. What are petrocrops ? Give an example.

GROUP – B

Answer any **two** questions from the following :

15. State the basic major steps followed for the axenic culture of plant tissue. 4 × 2
4
16. What are meristemoids ? Comment on different types of callus and their significance. 1 + 3
17. What is biodiesel ? Mention the important features of biodiesel. 1 + 3

18. Write down the preparation process of Handia. 4

GROUP – C

Answer any **one** question from the following : 8×1

19. How can the callus culture of plants be initiated? Give a comprehensive account of different kinds of culture that can be developed from callus culture. 2 + 6
20. Write down raw materials, microorganisms involved, and time required for Sauerkraut and pickle production. What are GRAS? Give examples. 5 + 3

[Internal Assessment – 10 Marks]

