

BA / BSc / BCOM DEGREE END SEMESTER EXAMINATION - NOVEMBER 2024

UGP (HONS.) SEMESTER - 1: DISCIPLINE SPECIFIC COURSE (BOTANY)

COURSE: 24UBOTDSC101: PLANT SCIENCE AND ITS ADVANCEMENTS

(For Regular 2024 Admission)

Time: 1.30 Hours

Max. Marks - 50

PART A

(Answer in one word) Each question carries 1 mark

(Maximum of 10 marks can be stored)

1. Give an example for a gigantic plant.
2. What are extremophiles?
3. Expand GIS.
4. Significant event related to *Phytophthora infestans* in human history.
5. Name the Keralite involved in the compilation of Hortus Malabaricus.
6. Give an example for natural system of classification.
7. The basal swollen portion of the archegonium is known as
8. Which enzyme is used in the extension step of PCR?
9. Expand SEM.
10. Name the universal photosynthetic pigment?
11. Sudden stoppage of life processes in biological samples is known as
12. Name a model organism used in plant research.

(1 x 10 = 10)

PART B

(Answer in 30 words); Each question carries 2 marks.

(Maximum of 20 marks can be scored)

13. Provide any two contributions of Janaki Ammal for plant science.
14. "Rice is known as the grain of life". Substantiate.
15. How IoT can be applied in agriculture?
16. "Plants are the ultimate problem solvers for climate change". Explain.
17. Bryophytes are known as "Amphibians of the plant kingdom". Justify.
18. Give an account on any two tools for plant collection.
19. Introduction of potato to Europe changed the course of human history. Justify.
20. State the principle and applications of TLC.
21. What is herbarium? State any two uses.
22. List out any four salient features of Gymnosperms.
23. What is microtome? Explain its applications.
24. Provide any two applications of ethnobotany.

(2 x 10 = 20)

PART C

(Answer in 75 words); Each question carries 5 marks

(Maximum of 20 marks can be scored)

25. Explain the general characters of Algae.
26. Briefly explain wet and dry plant preservation methods.
27. Pick one person mentioned below, describe their contributions to plant science, and share one opinion on how their work serves as an inspiration for your own science learning.
 - i. Theophrastus
 - ii. Carl Linnaeus
 - iii. John Ray
28. Describe the parts and functions of TEM and compound microscopes that are used for visualizing plant anatomy.
29. Discuss on special adaptations seen in insectivorous plants and pseudocopulation strategies seen in orchids.
30. Give a brief account on types of plant classification systems you have studied with suitable examples.

(5 x 4 = 20)