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I Semester B.Sc. Degree (CBCSS - OBE - Regular/Supplementary/ Improvement) Examination, November 2023 (2019 Admission Onwards) CORE COURSE IN BOTANY/PLANT SCIENCE

1B01BOT/PLS: Cytology and Angiosperm Anatomy

Time: 3 Hours

Max. Marks: 40

Instruction: Draw diagrams wherever specified.

PART - A

Objective type questions. Answer all.

 $(4 \times 1 = 4)$

- 1. Cell theory was proposed by
 - a) Robert Hooke
- b) Schleiden and Schwann d) James Thomson
- c) Leuwenhoek Quantosomes found in
- a) Lysosomes
 - c) Chloroplast
- d) Mitochondria 3. Cristae is the characteristic feature in

b) Nucleus

- a) Endoplasmic reticulum c) Mitochondria
- b) Ribosomes d) Chloroplast
- 4. Casperian strip present in
 - a) Pericycle
- b) Nucleus
- c) Endodermis
- d) Periderm

PART - B

Short Essay Questions. Answer any eight.

 $(8 \times 2 = 16)$

- Draw labeled diagram of Mitochondria.
- 6. Explain the structure of Endoplasmic reticulum.

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- 7. Explain the constituents of peroxisomes.
- Describe Secretory tissues and their classification.
- Differentiate Sap wood and Heart wood.
- Explain Tunica-Corpus theory.
- Differentiate Conjoint and radial vascular bundles.
- 12. Write a note on Hydathodes.
- 13. Describe Bulliform cells and its functions.
- 14. Give an account on Floral anatomy.
- 15. Mention the anatomical adaptations xerophytic plants.
- Write note on Bordered pits.

PART - C

Essay Questions. Answer any four.

 $(4 \times 3 = 12)$

- 17. Explain the structure and functions of Ribosomes.
- 18. Draw the ultra structure of interphase Nucleus.
- 19. Compare the anatomical difference between stem and root.
- 20. Explain the reasons for anomalous secondary growth in dicot plants. 21. Comment on Schizogenous and Lysogenous ducts.
- 22. Explain different types of stomata.

PART - D

Long Essay Questions. Answer any one.

 $(1 \times 8 = 8)$

- 23. Describe the membrane transport with reference to the structure of cell membrane.
- 24. Compare the anomalous secondary thickening of Boerhaavia stem with Dracaena stem.
- 25. Describe the structure of various components of Xylem and Phloem.