First Semester FYUGP Degree (Reg/Sup) Examination November 2025

KU1DSCBOT101/KU1DSCPLS101 - CELL : STRUCTURE AND REPRODUCTION

2024 Admission onwards

Time : 1.5 hours Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. Describe the contributions of Robert Hooke to cell biology.
2. What did Anton Van Leewenhoek contribute to the study of cells?
3. Explain the ultra structure of interphase Nucleus
4. Explain the importance of the nuclear pore complex in eukaryotic cells.
5. Define the cell cycle.
6. What are the main stages of meiosis.
7. What are plastids, and what are the different types of plastids found in plant cells?
8. Describe the structure of microtubules.

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Section B

Answer any 4 questions. Each carry 6 marks.

9. Give an illustrated account on the stages of karyokinesis in mitosis labeling key structures involved.
10. Develop a brief note that explains the importance of the cell cycle
11. Explain how the process of meiosis contributes to genetic diversity in plants.
12. Analyze the role and interconversion of different Plastids in the plant body.
13. Make a comparative analysis of different types microfilaments in a cell. How would you differentiate microfilaments and microtubules.
14. Illustrate the structure of ribosomes. How would you differentiate the ribosomes found in Prokaryotes, Eukaryotes and Mitochondrion.

Section C

Answer any 1 questions. Each carry 14 marks.

15. Write an essay on the structure and function of plant cell wall with the help of neat labelled diagrams.

16. Provide an overview of the fluid mosaic model of the cell membrane. Discuss its chemical composition and the significance of membrane.

قل ربّ زدني علما
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