BBT 11 — CELL BIOLOGY

Time : Three hours — Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is Lipid bilayer?

2. Write any two membrane associated proteins.

3. Define Grana.

4. Write the functions of photosynthetic pigments.

5. What is cisternae?

6. Define giant chromosomes.

7. What is Karyokinesis?

8. Write any two regulatory proteins of cell cycle.

9. What is sedimentation constant?

10. Define density gradient centrifugation

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Outline the various cell theories

Or

(b) Discuss the functions of plasma membrane

12. (a) Differentiate between prokaryotic and eukaryotic ribosomes.

Or

(b) Discuss the functions of cytoskeleton.

13. (a) Give a brief note on centrosomes.

Or

(b) Highlight the importance of endoplasmic reticulum.

14. (a) Differentiate between mitosis and meiosis.

Or

(b) Write short notes on cell renewal.

15. (a) Explain the working principle of phase contrast microscope.

Or

(b) Outline the applications of TEM.

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SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Elaborate on the structure and functions of cytoskeleton

17. Write in detail about the structure of plastids

18. Discuss the structure and functions of golgi complex.

19. Discuss the different phases of eukaryotic cell cycle.

20. Write the principle and applications of density gradient centrifugation

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