

APRIL/MAY 2018

**BBT11 — CELL BIOLOGY**

Time : Three hours

Maximum : 75 marks

**SECTION A — (10 × 2 = 20 marks)**

Answer ALL questions.

1. What are the components of nucleosomes?
2. Define capsid.
3. Draw the structure of plastids.
4. Mention the types of ribosomes.
5. Write the functions of golgi complex.
6. Mention the role of lysosome.
7. What are the phases of cell cycle?
8. Define Karyokinesis.
9. List any two applications of TEM.
10. Write the advantages of phase contrast microscope.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Describe the functions of cytoskeletal elements.

Or

- (b) Outline the postulates of cell theory.

12. (a) Describe the structure of mitochondria.

Or

- (b) Discuss the structure and types of Ribosomes.

13. (a) Draw the structure of nucleus and label the parts.

Or

- (b) Discuss the functions of chromosome.

14. (a) Briefly explain the mechanism of cell renewal.

Or

- (b) Discuss the significance of meiosis.

15. (a) List the applications of fluorescent microscope.

Or

- (b) Describe the principles of differential centrifugation.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Elaborate on the structure and function of plasma membrane.

17. Explain in detail about the functions of mitochondria.

18. Give a detailed account of structure and functions of Endoplasmic reticulum

19. Elucidate the phases of mitosis and its significance.

20. Discuss the principle and working of density gradient centrifugation.