APRIL 2018

1709309/UBYM21C

Time: Three hours Maximum: 75 marks

SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer any TEN questions.

- 1. Draw and label the parts of a basic virus.
- 2. What is the Composition of microtubules?
- 3. List the functions of lysosomes.
- 4. Note: Cell Wall Construction.
- 5. Define symport and antiport.
- 6. What is the function of peripheral membrane proteins?
- 7. Define ECM.
- 8. What are desmosomes? Where are they located?
- 9. State any two differences between a prokaryotic and eukaryotic genome.
- 10. State the significance of mitosis.
- 11. What is the function of aquaporins?
- 12. List the types of functions of prokaryotic ribosomes.

SECTION B — $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE questions.

- 13. Who proposed the cell theory? What are its postulates?
- 14. Compare the structure of a mitochondria with that of a chloroplast.
- 15. Discuss in detail the mechanism of active and passive transport.
- 16. Briefly explain the organisation of tissues.
- 17. Describe the types, structure and functions of chromosomes.
- 18. List the differences between plant cell and animal cell.
- 19. Explain the various stages of mitosis.

SECTION C —
$$(3 \times 10 = 30 \text{ marks})$$

Answer any THREE questions.

- 20. Explain the general structure, composition and functions of cytoskeleton.
- 21. Give an elaborate account of the structure of cell wall.

2 **1709309/UBYM21C**

- 22. Discuss the salient features of the 'Fluid Mosaic Model' of a membrane.
- 23. Write a detailed account on cell cell junctions.
- 24. Explain the various phases of cell cycle.



3 **1709309/UBYM21C**