

[Time: 03 Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:**
1. Question no.1 is compulsory
 2. Answer any 3 questions out of remaining 5 questions.
 3. Figures to right indicate full marks.
 4. Draw diagram wherever necessary

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| 1. | a) Explain structure of viruses. Enlist some important function of viruses. | 20 |
| | b) Write a note on structure & function of Prokaryotic & Eukaryotic cell. | |
| 2. | a) Explain in detail different stages of meiosis. | 10 |
| | b) Write in brief about passive transport. | 10 |
| 3. | a) Write a note on microtubule structure & synthesis at centrosome. | 10 |
| | b) Explain structure & function of lysosome. | 10 |
| 4. | a) Write a note on role of oncogenes in causing cancer. | 10 |
| | b) What are integrins ? Explain their role in formation of focal adhesion and hemidesmsome. | 10 |
| 5. | a) Explain gap junction, desmosomes and tight junction with proper diagrams. | 10 |
| | b) Discuss mechanism of programmed cell death. | 10 |
| 6. | a) Distinguish between necrosis and apoptosis. | 10 |
| | b) Explain G-protein coupled receptors. | 10 |