2022

Microbiology

[HONOURS]

(CBCS)

(B.Sc. Third Semester End Examination-2022)

PAPER-CC6T

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Cell Biology

Group-A

Answer any five questions of the following: **5x2=10**

1. Write down the importance of peroxisomes. 2
2. What are MAPs? Give example. 1+1
3. What is the main function of nucleoplasm? 2
4. Write down the function of HSP-70 and HSP-60. 1+1
5. Write down the features of signal sequence for protein sorting. 2
6. Write down the basic principle of protein modification. 2
7. What is the role of Rb protein? 2
8. Write down the significance of mitosis and meiosis. 1+1

Group-B

Answer any four questions of the following: **4x5 = 20**

1. Write down the structure and function of plasmodesmata. 3+2
2. Define ECM. Mention the components of ECM. State the functions of ECM. 1+2+2
3. Compare between benign and malignant tumer. Classify cancer and mention their symptoms. 2+3
4. What are apoptosis and Necrosis? State the basic mechanism of spoptosis. 2+3
5. What are stem cells? Classify them and describe each type. 1+4
6. Schematically represent and describe the transport of protein into the 'ER' by SRP. 5

Group –C

Answer any one question: **1x10 = 10**

1. What is secondary messenger in cell signalling system? Give example. Schematically represent the GPCR and RTK pathway. 1+2+7
2. Write down the difference between the cell membrane and the nuclear membrane. Differentiate between tight junction and gap junction. Write down the importance of 'CDK' to control the cell cycle. 2+4+4
