647510 Msc1MicC0110 Seat No :_____

M.Sc. (Micro) Semester - 1 (*CBCS*) Examination
Oct/Nov. -2019 - [OLD COURSE]
CELL BIOLOGY (CORE)

Time: 2:30 Hours **Marks: 70**

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1 Answer the following (any seven) **14**

1. What are 'cardiolipin' in Mitochondria?
2. Explain the function of microtubules.
3. What are porins ?
4. State the types of Endoplasmic reticulum? Explain the difference between them.
5. What are proto-oncogenes?
6. What is exocytosis?
7. Define the term diffusion.
8. What do you mean by 'Blebbing'? Where do they occur.
9. What are secondary messengers?
10. Write briefly the G1 and S mechanism in cell cycle

Q.2 Answer the following (any two) **14**

1. Write a note on special type of chromosomes
2. Elaborate the ultrastructure of nucleus and explain nuclear complex
3. Explain in detail Cyclines and cyclin dependent Kinase

Q.3 Answer the following

1. Describe the functions and structure of Lysosomes **05**
2. Explain the organelles: Glyoxisomes and Peroxisome **05**
3. Write a note on biogenesis of chloroplast **04**

OR

Q.3 Answer the following **14**

1. Describe the mechanism of GERL system
2. Explain the ultrastructure of Mitochondria

Q.4 Answer the following

A. Attempt any two **10**

1. Explain the ultrastructure and functions of microfilaments
2. Describe – Calcium dependent homophilic and non-homophilic cell adhesion
3. What do you mean by Intracellular junctions? Explain its functions

B. Attempt any one **04**

1. What are uniports and symports?
2. Explain the functions of IF and associated proteins

Q.5 Answer the following (any two) **14**

1. Describe the phenomenon of Endocytosis and Exocytosis
2. Write a note on cell biology approach of cancer
3. What is 'Apoptosis'?Explain mechanism and its significance.
4. Discuss the mechanism of 'AIDS' in cell biology

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