

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.

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- Q.1 Answer the following (any 7) 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 Cyclins 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
