

Total No. of Pages: 1

**6476**

Register Number:

Name of the Candidate:

**M.Sc. DEGREE EXAMINATION - 2015**

**(BIO-INFORMATICS)**

**(SECOND SEMESTER)**

**(PAPER – VII)**

**610. CELL BIOLOGY**

*May)*

*(Time: 3 Hours*

Maximum: 100 Marks

**Answer any FIVE questions. (5 × 20 = 100)**  
**All questions carry equal marks**

1. Explain the structure and functions of chloroplasts, golgi apparatus and mitochondria. (20)
2. Describe the ultra structure and functions of nucleus and nuclear pore complex. (20)
3. Discuss the co-transport with suitable examples. (20)
4. What are the modes of intercellular communications ? Explain their comments and functions. (20)
5. a) Illustrate the phases of mitosis and meiosis. (10)  
b) Explain PCD and necrosis. (10)
6. a) Explain a) Ras-ra-MAP kinase cascade (10)  
b) Crosstalk in signalling pathways. (10)
7. Discuss the principles, preparation of specimens , fixation and staining in TEM. (20)
8. a) Explain receptor kinases and their significance. (10)  
b) Write a note on second messengers. (10)

\*\*\*\*\*