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Roll No. ....

B.Sc. Bio-Tech - I Yr.

**NS-3457**

**B.Sc. Bio-Technology Examination,**

**May 2017**

**Cell Biology**

**[ B-103 (New) ]**

*Time : Three Hours ]*

*[Maximum Marks : 50*

**Note :** Attempt any **five** questions from the following.

1. What are the various mechanisms of membrane transport? Give a brief account of each of them. 10
2. Discuss the microtubular organisation of cilia and flagella. How the microtubular elements help the movements of these organs. 10

3. Describe the events during cell cycle with the help of diagram. Mention cell cycle regulation in brief. 10
4. What is cell-cell communication? Describe the cell adhesion molecules in detail with examples. 10
5. Give an account of the ultra-structure and function of mitochondria. 10
6. Give an account of the ultrastructure, biochemistry and function of the nucleus. 10
7. Explain the process of mitotic cell division (with diagrams) and compare it with meiotic division. 10
8. What is the cytoskeletal system? Describe all the components of cytoskeleton in detail. 10
9. Describe the structure of animal cell along with important functions of components. How is it different from a plant cell? 10

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10. Describe the process of biosynthesis of mitochondria and chloroplasts. Highlight the differences. (Preferably with diagrams).

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