

B.Sc. (CBCS Pattern) Semester - I
BIO-01 - Biotechnology Paper-I (Cell & Cell Organelles)

P. Pages : 2

Time : Three Hours



GUG/S/23/11562

Max. Marks : 50

1. Give detail account on typical structure of eukaryotic cell. 10

OR

a) Discuss the contribution of Robert Hook regarding to the discovery of cell. 2½

b) Give the classification of cells based on cell shape. 2½

c) Draw the typical structure of prokaryotic cell. 2½

d) Write a note on Nerve cell and its function. 2½

2. a) Discuss the structure and composition of plant cell wall. 5

b) Give the information about Ribosomes and its subunits. 5

OR

c) Write a note on Fluid-Mosaic Model. 2½

d) Give the structure and function of nucleus. 2½

e) Write a note on Mitochondria. 2½

f) Give an account on Plastids. 2½

3. Give detail account on intermediate filaments. 10

OR

a) Write a note on dynamic instability. 2½

b) Discuss about Microtubule motor. 2½

c) Give information about Microtubules. 2½

d) Describe amoeboid cell locomotion. 2½

4. Give detail account on various stages of Mitosis and Meiosis. 10

OR

- a) Write a note on cell cycle. 2½
- b) Discuss about cell synchronization. 2½
- c) Discuss cell differentiation in animals in brief. 2½
- d) Give the information about cell senescence. 2½
- 5. Attempt any ten. 10**
- a) Define cell.
- b) What are the basic components of plant cell wall?
- c) What is the function of Nerve Cell?
- d) Who proposed Fluid - Mosaic Model?
- e) What are the subunits of eukaryotic ribosome?
- f) Define plastids.
- g) What are microtubules?
- h) Define dynamic instability.
- i) Give the examples of intermediate filaments.
- j) What is the position of centrioles in Anaphase?
- k) Define cell senescence.
- l) What is cell synchronization?
