B.Sc. (CBCS Pattern) Semester-I

BIO-01 - Biotechnology-I - Cell & Cell Organelles

P. Pages : 2 **GUG/W/24/11562**

Time : Three Hours * 4 5 1 8 * Max. Marks : 50

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1. Discuss typical structure of prokaryotic cell. **10**

OR

a) Write a note on Nerve Cell. **2½**

b) Discuss the contribution of Robert Hook. **2½**

c) Write a note on Muscle cell. **2½**

d) Write a note on cell theory. **2½**

2. Explain structure and functions of Bacterial cell wall. **10**

OR

Write a note on :

a) Cytosol **2½**

b) Plastids **2½**

c) Nucleus. **2½**

d) Endoplasmic reticulum. **2½**

3. Explain Tabulin synthesis and modification. **10**

OR

a) Discuss the types of cell locomotion. **2½**

b) Write a note on microtube motor. **2½**

c) Explain the structure of Actin filament. **2½**

d) Write a note on neurofilament. **2½**

4. Discuss the stages of Meiosis. **10**

OR

Write a note on:

a) Cell senescence. **2½**

b) Cell synchronization. **2½**

c) S-Phase. **2½**

d) Anaphase. **2½**

5. Solve **any ten** questions (**1** mark each). **10**

a) Write any two Contribution of Theodor Schwan.

b) State any two differences of plant and animal cell.

c) What are the functions of Nerve Cell?

d) What are the functions of nucleus?

e) What is the composition of plant cell?

f) What are the types of endoplasmic reticulum?

g) what are types of Microtubule motor?

h) What are the types of intermediate filaments?

i) What are the functions of Actin filament?

j) Define cell division.

k) What are application of cell synchronization.

l) State any two characteristics of Metaphase.

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