

B.Sc. (NEP) Semester-I  
**BSCBT501 Core - Biotechnology - Cell Biology-I**

P. Pages : 2

Time : Three Hours



**GUG/S/25/15918**

Max. Marks : 40

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1. Describe in detail animal cell. 8

**OR**

- i) Discuss in detail the cell theory. 2
- ii) Discuss structure and functions of muscles cell. 2
- iii) Write the role of any two scientist in the discovery of cell. 2
- iv) Explain – cell as a basic unit of living system. 2

2. Describe in detail cell wall of Gram positive and Gram negative bacteria. 8

**OR**

- i) Describe fluid mosaic model of plasma membrane. 2
- ii) Differentiate between mitochondria and chloroplast. 2
- iii) Draw a well labelled diagram of Nucleus. 2
- iv) Describe in detail ribosomes and its submits. 2

3. Describe in detail microtubule motor of kinesins and dyneins. 8

**OR**

- i) Give the structure of microtubules. 2
- ii) Give the structure of tubulin. 2
- iii) Describe in detail structure and functions of Active. 2
- iv) What are intermediate filament. 2

4. What is cell division? Describe in detail cell cycle. 8

**OR**

- i) Write a note on mitosis. 2
- ii) Write a note on cytokinesis. 2

iii) Discuss cell differentiation in plant. 2

iv) Write a note on cell senescence. 2

**5. Solve any ten.**

i) What is contribution of Jakob Schleiden? 1

ii) What is cell number? 1

iii) What proposed the cell theory? 1

iv) What is lysosome? 1

v) Write a role of Golgi apparatus? 1

vi) What is plastid? 1

vii) What is cytoskeleton? 1

viii) What is Vimentins? 1

ix) Write the role of Lamins? 1

x) Write the name of stages of mitosis? 1

xi) What is apoptosis? 1

xii) Write the role of diakinesis phase? 1

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