

**B.N. Bandodkar College of Science, Thane.**  
**S.Y.B.Sc. USZO402**  
**Second Semester End Examination <sup>March/</sup> April, 2017**

**Duration 2.5 Hrs**

**Max Marks-75**

- 1) All questions are compulsory.**
- 2) Draw neat and labelled diagrams wherever necessary**
- 3) Figures to right indicate full marks.**

**Marks**

- Q.1 Write short note on. (Any Four) (20)**
1. Cell theory.
  2. Structure of interphase nucleus.
  3. Fluid mosaic model.
  4. Membrane receptors and their classification.
  5. Simple and facilitated diffusion.
  6. Endocytosis and its types.
  7. Microfilaments and their functions.
  8. Ultrastructure of nuclear pore complex.
- Q.2 A) Describe the following: (Any One) (10)**
1. Ultrastructure and morphology of lysosomes.
  2. Ultrastructure and function of mitochondria.
- Q.2 B) Write short notes on. (Any Two) (10)**
1. Occurrence of endoplasmic reticulum.
  2. Morphology of golgi complex.
  3. Function of lysosomes.
  4. Marker enzymes in mitochondria.
- Q.3 A) Describe the following: (Any One) (10)**
1. Polysaccharides.
  2. Secondary structure of protein.
- Q.3 B) Write short notes on: (Any Two) (10)**
1. Glycosidic bond.
  2. Classification of amino acids based on nutritional requirement.
  3. Saturated fatty acids.
  4. Vitamin C.

**( P. T. O )**

**Q.4 A) Give an account on Prokaryotic cell. (05)**

**OR**

**Q.4 A) Answer in one sentence. (05)**

1. Define cell.
2. Write full form of SEM with ref to Microscopy
3. What is mononucleate cell?
4. Define osmosis
5. Define exocytosis

**Q.4 B) Give an account on types of endoplasmic reticulum. (05)**

**OR**

**Q.4 B) Answer in one sentence. (05)**

1. Write full form of GAAP with ref to golgi complex.
2. What is convex face of cisternae in golgi complex?
3. Define reverse endocytosis.
4. Define Autolysis.
5.  $F_0-F_1$  particles are seen in which cell organelles.

**Q.4 C) Give an account on properties of carbohydrates. (05)**

**OR**

**Q.4 C) Answer in one sentence. (05)**

1. Function of macromolecules.
2. Enantiomers.
3. Define zwitterions.
4. Define saponification.
5. Clinical significance of vitamin  $B_{12}$ .