

VCD 9/10/19

Paper-II USZO402

Total Marks: 100

Duration 3 hrs.

Note:

- 1) All the questions are compulsory.
- 2) Figures at right indicates marks.
- 3) Draw diagrams wherever necessary.
- 4) Answer in serial order.

Q1) A Fill in the blanks.**(05)**

- 1) In the prokaryotes cells division is by (mitosis, simple fission, meiosis)
- 2) Rough endoplasmic reticulum is responsible for synthesis of (lipids, proteins, vitamins)
- 3) was discovered by Chirstain de Duve (SER, Lysosomes, Goligi complex)
- 4) Cellulose is a (monosaccharide, polysaccharide, oligosaccharide)
- 5) is a positively charged amino acid (Aspartic acid, Luecine, arginine)

B) Match the following**(05)**

- | | |
|-----------------------|--------------------------|
| 1) Anchoring junction | A) Glucogenic amino acid |
| 2) Mitochondria | B) Pauling and Corey |
| 3) Nucleus | C) Desmosomes |
| 4) Alanine | D) Powerhouse |
| 5) α helix | E) Nuclear envelope |

C) True or False**(05)**

- 1) Histidine is non- essential in adults.
- 2) Golgi complex was discovered by Pflugir(1869).
- 3) Pinnocytosis means cellular eating.
- 4) Residual bodies are present in lysosomes.
- 5) β form was first recognised in β keratin.

D) Answer in one sentence.**(05)**

- 1) Who coined the term protein?
- 2) Define simple diffusion.

- 3) What are marker enzymes of mitochondria?
- 4) Define microvilli.
- 5) Define Vitamins.

Q2) Answer the following (Any 2)

(20)

- 1) Describe Fluid Mosaic model of plasma membrane.
- 2) Explain endocytosis and its types.
- 3) Differentiate between Prokaryotic and eukaryotic cells
- 4) Describe Microfilament and its function

Q3) Answer the following (Any 2)

(20)

- 1) Describe ultrastructure of Endoplasmic reticulum
- 2) Explain in detail ultrastructure of Golgi complex with its significance.
- 3) Biogenesis in Mitochondria
- 4) Structure and functions of Lysosomes.

Q4) Answer the following (Any 2)

(20)

- 1) Discuss the properties of carbohydrates.
- 2) Describe the structure of water and add a note on its physico-chemical properties.
- 3) Define Amino acid. Discuss its classification based on R group.
- 4) Define Lipids. Explain its classification in detail.

Q5) Write short note (Any 4)

(20)

- 1) Saturated fatty acid
- 2) Cell theory
- 3) Structure of Nucleus
- 4) Proteins
- 5) Labilizers and Stabilizers
- 6) Collagen
- 7) Anomers
- 8) Active transport