



**K22U 1315**

Reg. No. : .....

Name : .....

**II Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/  
Improvement) Examination, April 2022**

**(2019 Admission Onwards)**

**COMPLEMENTARY ELECTIVE COURSE IN PHYSIOLOGY**

**2C02PLY : Cell Biology**

Time : 3 Hours

Max. Marks : 32

- I. Essay questions. Answer **any two** : **(2×6=12)**
- 1) Describe the structure and functions of Mitochondria.
  - 2) Give an account of semi-conservative method of DNA replication.
  - 3) Give a detailed account on structure, polymorphism and functions of lysosomes.
  - 4) Explain the fluid mosaic model of plasma membrane.
- II. Short essay questions. Answer **any two** : **(2×3=6)**
- 5) Outline the structure and functions of Endoplasmic reticulum.
  - 6) What are the characteristics of Polytene chromosomes ?
  - 7) Explain Cytoskeleton.
- III. Short answer questions. Answer **any six** : **(6×2=12)**
- 8) What is the difference between Osmosis and Diffusion ?
  - 9) What are the functions of ribosome ?
  - 10) Write the significance of meiosis.
  - 11) What is Pinocytosis ?
  - 12) What is meant by oxidative phosphorylation ?
  - 13) State the Cell theory.
  - 14) Comment on Golgi complex.
  - 15) What is transcription ?

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IV. Multiple choice questions. Answer **all**.

**(4×0.5=2)**

- 16) Which of the following cell organelles contains RNA ?
- a) Mitochondria
  - b) Plastids
  - c) Lysosomes
  - d) Ribosomes
- 17) Microfilaments are composed of a subunit called
- a) Tubulin
  - b) Actin
  - c) Myosin
  - d) Chitin
- 18) Sodium and potassium pumps are examples of
- a) Plasmolysis
  - b) Passive transport
  - c) Active transport
  - d) Osmosis
- 19) The carbohydrate component of both glycoproteins and glycolipids in the cell membrane are
- a) Polysaccharide
  - b) Monosaccharides
  - c) Oligosaccharides
  - d) Pentoses
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