

4 copies



Murugan.

Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment I – August 2024

Semester I

Class : I UG
Major: Biochemistry and Biotechnology

Time: 2 Hours
Max.Marks: 60

23BBTC01 Cell Biology and Membrane Biology

Course Outcomes:

- CO1: Understand the structure and functions of cell organelles
CO2: Establish the role of cell wall, cytoskeletal elements in cell locomotion, cell cycle and cell death.
CO3: Know the structure of nerve cells, muscle cells and their role in neurotransmission, muscle contraction.
CO4: Acquire knowledge on Biomembranes – structure and fluidity
CO5: Recognize the mechanism of transport across membranes

Part A

6 x 1 = 6

Choose the correct answer

1. The term cell was given by _____
a. Robert Hooke b. Tatum c. Schwann d. De Bary CO1K2
2. The cell wall of plant cell is made up of _____
a. Cellulose b. Carbohydrates c. Lipids d. Lipoproteins CO2K2
3. Lysosomes are known as "suicidal bags" because _____
a. Parasitic activity b. Presence of food vacuole
c. Hydrolytic activity d. Catalytic activity CO1K2
4. Which of the following is used by cells to interact with other cells? CO2K2
a. Cell tubules b. Cell junctions c. Cell adhesions d. Cell detectors
5. In which of the following type of cells Sarcoplasmic reticulum is found? CO1K2
a. muscle cells b. liver cells c. kidney cells d. neurons
6. The protein coat of viruses that enclose the genetic material is called _____
a. Virion b. Capsid c. Peplomers d. Capsomers CO1K2

Part B **3 x 6 = 18**
Answer the following
Answers should not exceed 400 words or two pages

7. (a) Distinguish between plant and animal cells. CO1K2
(or)
7. (b) Elaborate in detail about the structure and properties of Mycoplasma. CO1K2
8. (a) Give a detailed account on structure and functions of mitochondria. CO2K2
(or)
8. (b) Explain the structure and types of neuron with neat sketch. CO2K3
9. (a) Write an elaborate note on various types of neurotransmitters. CO3K2
(or)
9. (b) Give an account on Ultra structure of skeletal muscles. CO3K2

Part C **3 x 12 = 36**
Answer ALL questions
Each answer should not exceed 800 words or four pages

10. (a) Differentiate between prokaryotic and eukaryotic cells CO1K2
(or)
10. (b) Elaborate in detail about the structure and classification of viruses. CO1K2
11. (a) Explain the structure and functions of nucleus. CO2K2
(or)
11. (b) Explain the following: i) Resting potential ii) Action potential CO2K2
12. (a) Give an account on muscle cells, its types and their structure. CO3K2
(or)
12. (b) Illustrate the structure of prokaryotic cell wall and review its function. CO3K2

Total Number of QP: 55 (aided)+40 (SF)