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SUBJECT CODE NO: - FF-6600
FACULTY OF SCIENCE AND TECHNOLOGY
M.Sc. (Sem-II) (Zoology)
Examination January-2023
Biophysics -ZOO-203

[Time: 3:00 Hours]

[Max. Marks: 80]

Please check whether you have got the right question paper.

N. B

- 1) All questions carry equal marks.
- 2) Solve any 5 questions from Que.2 to Que.8
- 3) Draw diagram whenever necessary.

PART-A

Q1 Attempt the following MCQs

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- 1) What is the difference between active & passive transport?
 - a) Active transport required energy and passive transport does not
 - b) In active transport movement of molecules against concentration gradient while it is along the concentration gradient in active transport
 - c) Both a) & b)
 - d) None
- 2) Diffusion of water through selectively permeable membrane is
 - a) Imbibition
 - b) Osmosis
 - c) Translocation
 - d) Diffusion
- 3) Which of the following option is constant is closed type of system
 - a) Energy
 - b) Mass
 - c) Temp
 - d) Momentum
- 4) The functional Unit of contractile system of striated muscle is
 - a) Cross bridges
 - b) Sarcomere
 - c) Myofrils
 - d) Z-band
- 5) Isotopes of an element have different numbers of _____
 - a) Protons
 - b) electrons
 - c) neutrons
 - d) None of above
- 6) Radioactive iodine is used to diagnose or detect the disease of
 - a) bones
 - b) Kidney
 - c) Blood Cells
 - d) Thyroid
- 7) the Oxygen liberated during photosynthesis comes from
 - a) CO₂
 - b) Enzyme
 - c) Carbohydrate
 - d) Water

- 8) In synapse, which of the following site contains receptors site for neurotransmitter
- a) Post synaptic ending b) Presynaptic ending
- c) Synaptic cleft d) None of above
- 9) Radioactive was first described by
- a) Becquerel b) Khorana c) James Watt d) Joseph Lister
- 10) Radiation effects which can be passed to later generation of person receiving radiation are called
- a) Somatic effect b) Genetic effect c) Radiosensitive effect d) none

PART-B

- Q2 Write chemical composition of cell membrane. Explain fluid Mosaic model of plasma membrane. 12
- Q3 What is facilitated diffusion? Explain its type with the help of diagram. 12
- Q4 What is membrane transport? Give an account of Endocytosis & Exocytosis 12
- Q5 Give an account of Mechanism of muscle contraction (sliding filament theory) 12
- Q6 Define Photosynthesis. Explain Light & Dark reactions. 12
- Q7 Give an account of various applications of Radioactive tracers in various fields
- Q8 Attempt any two of the following 12
- a) Physical aspects of hearing
- b) ECG
- c) Blood Pressure & its significance