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SUBJECT CODE NO:- 6549
FACULTY OF SCIENCE & TECHNOLOGY
M.Sc. (Sem-II)

Examinations March/April-2022 (To be held in June/July-2022)

Zoology

Biophysics -ZOO-203

[Time: 3:45 Hours]

[Max.Marks:80]

Please check whether you have got the right question paper.

N.B

- i) Q.No.1 is compulsory.
- ii) Attempt any five questions from Q.No.2 to 8.

Q.1 MCQ (Total 10 MCQ)

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- 1) Diffusion of water through selectively permeable membrane is _____
 - a) Imbibition
 - b) Osmosis
 - c) Translocation
 - d) Diffusion
- 2) Movement of ions or molecules across the cell membrane from lower concentration to higher concentration with the help of protein or enzyme is called as
 - a) Passive transport
 - b) Osmosis
 - c) Active transport
 - d) Translocation
- 3) The limitation of 1st law of thermodynamic is _____
 - a) It does not indicate possibilities of spontaneous process proceeding in a definite direction
 - b) It assign a quality to different form of energy
 - c) It indicate the direction of any spontaneous process
 - d) None of the above.
- 4) Which of the following option is correctly constant in closed type system.
 - a) energy
 - b) mass
 - c) temperature
 - d) momentum
- 5) The bye-product of photosynthesis is

a) CO ₂	b) Energy	c) Sugar	d) O ₂
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- 6) Muscles get fatigue due to accumulation of _____

a) ATP	b) Phosphate molecules	c) Lactic acid	d) CO ₂
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- 7) In synapse, which of the following site contains receptors sites for neurotransmitter.
 - a) Pre-synaptic ending
 - b) Post-synaptic ending
 - c) Synaptic cleft
 - d) None of above

- 8) Radioactivity was first described by-
- a) Becquerel
 - b) Khorana
 - c) James Watt
 - d) Joseph Lister
- 9) Acute radiation syndrome (ARS) is occurs by exposure of radiations of
- a) Low dose in short period of time
 - b) High dose in long period of time
 - c) High dose in short period of time
 - d) Low dose in long period of time
- 10) In in-utero effect shows which biological effect of the following.
- a) Intra-uterine death of fetus
 - b) Growth retardation of fetus
 - c) Developmental abnormalities
 - d) All of the above
- Q.2 What is diffusion? Explain factors affecting rate of diffusion. Add a note on significance of it in Animals and plants. 12
- Q.3 Write down chemical composition of cell membrane. Explain fluid mosaic model of plasma membrane. 12
- Q.4 What is membrane transport? Give an account of endocytosis & exocytosis. 12
- Q.5 Define photosynthesis? Explain Light & Dark reaction. 12
- Q.6 Give an account of Mechanism of muscle contraction based on sliding filament theory. 12
- Q.7 Explain structure of synapse? Give an account of transmission of nerve impulse. 12
- Q.8 Write notes on (Any two) 12
- a) Secondary active transport
 - b) Role of cholesterol in plasma membrane stability
 - c) Neural aspect of vision.