 **ST JOSEPH’S UNIVERSITY, BENGALURU -27**

Registration Number:

Date & session:

**M.Sc. ZOOLOGY – I SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2023**

**(Examination conducted in November /December 2023)**

**ZO 7322 – ANIMAL PHYSIOLOGY and BIOCHEMISTRY**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 50**

**This paper contains two printed pages and four parts**

**PART-A**

Answer **all the five** questions **5 X 1 = 5**

1. Define lethal temperature.
2. -------- is physiologically active form of vitamin A.
3. What is the role of supracoracoideus?
4. ------- is the unbranched skeleton of glucose in starch.
5. What is the role of TMAO in salt and water balance?

**PART-B**

Answer **all the five** questions **5 X 2 = 10**

1. Write a brief note of prostaglandins.
2. Define electrochemical gradient.
3. List four respiratory enzyme complexes involved in electron transport chain.
4. Explain Nernest equation.
5. How A form of DNA is different from that of B form.

**PART-C**

Answer **any three** questions **3 X 5 = 15**

1. Draw the schematic representation of TCA cycle.
2. Explain synaptic plasticity.
3. Explain the steps involved in the synthesis of glycogen with a scheme.
4. Define tertiary structure of a protein and briefly explain the interactions contributing to the tertiary structure of a protein.
5. With neat labeled diagram describe the structure of a neuron. Add a functional note on each of its components

**PART-D**

Answer **any two** questions **2 X 10 = 20**

1. Explain the mechanism of muscle contraction.
2. Explain how glucose is converted into pyruvate with schematic representation.
3. Explain the concept of osmoregulation in fresh water and marine fishes.

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