

PART-2
ZOOLOGY HONOURS
Paper 4

Unit I

FM-25

1. Answer the following questions (any 5) $5 \times 2 = 10$
- What is neoglucogenesis?
 - Enumerate the terms poikilothermic and homeothermic.
 - What is thermoneutral zone?
 - Mention the site of occurrence of transamination.
 - Write the difference between osmoregulators and osmoconformers.
 - Write Allen's rule.
 - What is isotonic contraction?
 - What is the role of ornithin in urea cycle?

Group A

Answer the following questions (any 2)

2. Describe the RAAS pathway. Explain how carbon dioxide is transported in blood with special mention to chloride shift. (3+2)
3. Write short note on any two
- Bohr effect
 - Uricotelic organisms
 - Temporal countercurrent system
 - Salt gland
- ($2^{1/2} \times 2$)
4. Give an account of osmoregulation in catadromous and anadromous fish. How nerve impulse is propagated through the neuromuscular junction? (5)
5. What is saltatory conduction? Write an account on photochemical changes in rhodopsin. How neurons cause muscle fibres to contract? (2+3)

Group B

Answer the following questions (any 1)

6. Describe the process of beta oxidation of C16 fatty acid. (5)
7. Describe the process of electron transport chain culminating in the process of ATP synthesis. Write one function each of epinephrine and norepinephrine. (3+2)