

**2020**  
**Gurudas College**  
**ZOOLOGY – HONOURS**  
**(1+1+1 2016 Regulations)**  
**PAPER 4 (UNIT I)**  
**Full Marks: 50**

**Time: 2 hrs.**

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in their own words as far as practicable*

Answer *any twenty five* questions from the following:

2x25

- 1) Define saltatory conduction.
- 2) Explain EPSP.
- 3) State two differences of synaptic and neuromuscular transmissions
- 4) Mention the ionic basis of repolarization of nerve fibre.
- 5) Explain Tricolour theory of color vision.
- 6) Write the full form of GABA and one function of it.
- 7) Give only the scheme of photophysiology of vision
- 8) What do you mean by transferase? Give one example.
- 9) What does  $K_m$  signify?
- 10) Mention the role of  $Ca^{++}$  in muscle contraction
- 11) Explain Facultative water reabsorption
- 12) What do you mean by effective filtration pressure?
- 13) Write the full form of TMAO and GFR .
- 14) Write one difference between osmoregulators and osmoconformer Give example.
- 15) Name two systems associated with hypertonic urine formation
- 16) Differentiate osmoregulatory principle between marine teleosts and marine elasmobranchs
- 17) Mention the buffer system in acid base regulation and its site of action
- 18) Mention the effect of temperature on enzyme activity
- 19) Name types of Troponin present in muscle
- 20) Name the components of Juxtaglomerular Apparatus and one secretory product of it.
- 21) What is the prosthetic group of enzyme? Give an example.
- 22) What do you mean by rate limiting enzyme? Give example.

- 23) What is Deamination?
- 24) What is meant by Electron transport chain?
- 25) Define disaccharide with two examples.
- 26) What is triacylglycerol?
- 27) Write the full form of NADP. State one function.
- 28) What are isozymes? Give example.
- 29) What is Cori cycle?
- 30) Define glycogenolysis.
- 31) Define unsaturated fatty acid with one example.
32. What are L- and D-forms of carbohydrate.
33. Mention the significance of glycogenesis.
34. What is oxidative phosphorylation?
35. Define transamination.