

**M.Sc. 1st Semester Examination, 2024**

**ZOOLOGY**

*(Animal Physiology)*

PAPER—ZOO-104

*Full Marks : 25*

*Time : 1 hour*

Answer **all** questions

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

**GROUP – A**

1. Answer any *two* questions from the following : 2 × 2
- (a) Which cardiac events are indicated by P wave and QRS complex of an ECG ?

( Turn Over )

- (b) What do you mean by neurogenic and myogenic hearts ? Where do you find them ?
- (c) State how Set point and thermostat co-ordinate.
- (d) Define Regional Heterothermy.

GROUP – B

2. Answer any *two* questions from the following : 4×2
- (a) Draw the conducting system of a typical heart explaining the electrical activity across it.
  - (b) Compare the Oxygen affinity of Hemoglobin with that of Myoglobin.
  - (c) Depict the cell-lineage of erythropoiesis in mammals by the help of a pictorial flow-chart.

( 3 ) :

- (d) Give one example each of positive and negative feedback control of hormone secretion in mammals. 2 + 2

**GROUP – C**

3. Answer any *one* questions from the following : 8 × 1
- (a) (i) Describe the Counter-current cooling mechanism with appropriate diagram.
- (ii) How are Free Radicals disintegrated in our body ? Depict the pathway. 4 + 4
- (b) (i) Explain Bohr effect. Mention the factors that may induce Bohr effect.
- (ii) What do you mean by physiological comfort zone of man with reference to temperature and relative humidity of air. (3 + 2) + 3

**[ Internal Assessment – 5 Marks ]**

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