

Roll No.

Total Pages : 03

GSM/M-21

1630

ZOOLOGY

Paper II

Mammalian Physiology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all. Q. No. **1** is compulsory.
Attempt *two* questions each from Section A and
Section B. Support your answer with neat and labelled
diagram(s) wherever necessary.

(Compulsory Question)

1. Explain the following in about **20** words each :

- (a) Haemopoiesis
- (b) Anticoagulants
- (c) Cardiac Output
- (d) Chloride Shift
- (e) Osmoregulation
- (f) Uricotelism
- (g) Medulated Nerve Fibre
- (h) Neurotransmitters
- (i) Hormone
- (j) Parturition.

1½×10=15

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Section A

2. What is Heart Beat ? Describe origin and conduction of heart beat. 6¼
3. (a) Define tidal volume, residual volume and vital capacity of lungs. Give their average value in normal human adult. 3¼
- (b) Explain exchange of respiratory gases at the level of lungs and at tissue level. 3
4. Describe the composition and functions of blood. 6¼
5. Write short notes on the following :
- (a) Structure of nephron 3¼
- (b) Ornithine cycle. 3

Section B

6. What is Synapse ? Explain conduction of nerve impulse through a synapse. 6¼
7. Name the various hormones and their functions secreted by Pituitary Gland. 6¼

8. What is Spermatogenesis ? Describe the mechanism of spermatogenesis. 6¼
9. Write short notes on the following :
- (a) Saltatory conduction 3¼
 - (b) Mechanism of action of steroid hormones. 3