

G-2/244/21

Roll No.....

M.Sc. II Semester Examination, 2021

ZOOLOGY

Paper II

(Physiology of Vertebrates)

Time : 3 Hours]

[Maximum Marks : 80

Note : All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/multiple choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.

SECTION 'A'

(Objective Type Questions)

Choose the correct answer :

1 × 8 = 8

1. Stomach epithelial cells in the body secrete :

- (a) Hydrochloric acid (b) Oxytocin
(c) Adrenaline (d) Testosterone

2. The maximum amount of carbon dioxide in the human body is transported as :

- (a) Bicarbonate (b) Carbide
(c) Amylase (d) None of the above

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3. What is the Ratio of WBC to RBC :

- (a) 1 : 60 (b) 1 : 600
(c) 1 : 60000 (d) 1 : 6

4. Which of the largest blood vessel in the human body :

- (a) Pulmonary vein (b) Capillaries
(c) Aorta (d) Carotid

5. Corpus luteum is the source of secretion of :

- (a) LH (b) Estradiol
(c) Estrogen (d) Progesterone

6. Which body muscle can resist fatigue :

- (a) Voluntary (b) Striped
(c) Involuntary (d) Cardiac

7. Which of the following is not a neurotransmitter :

- (a) Glutamic acid (b) Acetylcholine
(c) Tyrosine (d) None of the above

8. Which of the following is the largest cranial nerve :

- (a) Oculomotor (b) Optic
(c) Olfactory (d) Trigeminal

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SECTION 'B'

6 × 4 = 24

(Short Answer Type Questions)

Note : Answer the following questions in 250 words.

Unit I

1. Write notes on any one :

- (a) Pancreas,
- (b) Bile Juice.

Unit II

2. Write notes on the following : **(any one)**

- (a) Ornithene cycle,
- (b) Structure and function of Red blood corpuseles.

Unit III

3. Write notes on : **(any one)**

- (a) Lactation,
- (b) Estrous cycle.

Unit IV

4. Write notes on any one of the following :

- (a) Chemoreceptors,
- (b) Phonoreceptors.

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SECTION 'C'

12 × 4 = 48

(Long Answer Type Questions)

Note : Answer the following questions in 500 words.

Unit I

1. Describe the physiology of digestion.

Or

Describe the breathing mechanism.

Unit II

2. Explain the single and double circulation of body fluid in fishes and Mammalian.

Or

Describe the physiology of kidney.

Unit III

3. Explain spermatogenesis and its Hormonal regulation

Or

Describe the different types of mammalian placenta.

Unit IV

4. Describe the structure and physiology of Eye.

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Or

Write notes on the following : **(any one)**

(a) Pheromones,

(b) Bioluminescence,

(c) Nerve cell.

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