

**ZO-503****Animal Physiology and Physiological Chemistry**

M. Sc. ZOOLOGY (MSCZO-12)

First Year, Examination, 2018

**Time : 3 Hours****Max. Marks : 80**

**Note :** This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

**Section-A****(Long Answer Type Questions)**

**Note :** Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Discuss the role of calcium in muscle contraction.
2. Explain the physiology of absorption of carbohydrates and fats.
3. Discuss the process of glycolysis and also state in the absence of O<sub>2</sub> but will be the future of its produced.
4. Give the classification of carbohydrates and explain its general character.

**Section-B****(Short Answer Type Questions)**

**Note :** Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. Explain the role of HCl secreted in stomach.

2. Discuss the structure of a neuron in breath.
3. Differentiate between external and Internal Respiration.
4. Write a brief essay on regulation of menstrual cycle by hormones.
5. Explain the chief function of thyroid glands.
6. Briefly explain the thermoregulation and give the definition.
7. Give the difference between enzyme and co-enzyme.
8. What is importance of electron transport chain (ETC) ?

### **Section–C**

#### **(Objective Type Questions)**

**Note :** Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. The reabsorption of water in the kidney is under control of :
  - (a) STH
  - (b) ACTH
  - (c) LH
  - (d) ADH
2. The highest concentration of urea is found in :
  - (a) Renal vein
  - (b) Hepatic portal vein
  - (c) Dorsal aorta
  - (d) Hepatic vein
3. Gastronomic muscles are found in :
  - (a) Thigh

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- (b) Chest
  - (c) Ovary
  - (d) Testis
4. Action potential of nerve cell is created by :
- (a) Ca
  - (b) K
  - (c) Na
  - (d) Cl
5. Acetylcholine is :
- (a) Toxin
  - (b) Vitamins
  - (c) Enzyme
  - (d) Chemical transmitter

Fill in blanks :

- 6. Master gland of body is .....
- 7. The cardiac output is the .....
- 8. Deficiency in Hemoglobin (Hb) is referred to as .....
- 9. Uric acid is formed by the degradation ..... in mammals.
- 10. The unit of Kidney is .....

