Roll No :- _

3569

M.Sc. (Zoology) (SEMESTER-II) EXAMINATION, 2019

PAPER-VIII

PHYSIOLOGY AND ENDOCRINOLOGY

Time Allowed - Three Hours
Maximum Marks - 50

Note: The questions paper is divided into three parts, Part-A, Part-B and Part-C.

Part-A (Compulsory) ***{Marks:10}***

Part A is compulsory and contains 10 questions (50 words each). Each question is of 1 mark.

Part-B (Compulsory) ***{Marks:10}***

Part-B is compulsory and contains five questions at least one from each unit. Candidate is required to attempt all five questions. Each question is of 2 marks (100 words).

Part-C ***{Marks:30}***

Part-C contains six questions two from each unit. Candidate is required to attempt three questions. one from each unit . Each question is of 10 marks (400 words).

Part-A (Compulsory)

1. In which part of the alimentary canal Brunner's glands are present?
2. In which animals haemocyanin respiratory pigment is present?
3. Distinguish between myofibrils and myofilaments.
4. What is fovea centralis in retina?
5. Differentiate between ectothermic and endothermic animals.
6. Write names of the different parts of anterior pituitary gland.
7. What do you mean by net (effective) filteration pressure?
8. Define thrombosis.
9. What are nissl's granules? Where these are present in neuron?
10. Write the names of different types of cells present in the islets of Langerhans and hormone secreted by them.

Part-B(Compulsory)

11. Explain the role of pancreas in digestion of proteins.
12. Explain the origin of action potential in a nerve fiber.

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13. Write a brief account on the role of hormones involved in the process of parturition.

14. Write an account on the biochemical nature of hormones with suitable examples.

15. Discuss neural control of respiration in mammals.

Part-C

Unit-I

16. Give a lucid account of the process of urine formation and its hormonal control.

OR

17- Write notes on the following.

a) Heart beat

b) Transportation of CO_2 in the blood.

Unit-II

18- Give a brief account on the structural proteins of striated muscles. Discuss the biochemical and biophysical events taking place during contraction of striated muscles.

OR

19- Write notes on the following.

a) Organ of corti.

b) Hibernation and aestivation.

Unit-III

20- Describe the synthesis, storage, release, functions and regulation of secretion of thyroid gland hormones (T_3 and T_4).

OR

21- Write notes on the following.

a) Neuro endocrine regulation in insects.

b) Functions of the adrenal cortex hormones and related diseases of their abnormal secretion.

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