17U616 (Pages: 2) Name: ……..…….

Reg. No……..……

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

CC15U ZO6 B11 - PHYSIOLOGY AND ENDOCRINOLOGY

Zoology - Core Course

(2015 Admission onwards)

Time: Three Hours Maximum: 80 Marks

A. Answer ***all*** questions. Each question carries 1 mark :

1. Name the hormones associated with milk production and milk ejection.
2. Write down the role of pineal gland hormones.
3. Name the hormones produced by placenta.
4. What are neurotrophins?
5. Define haemostasis.
6. What are the different modes of excretion?
7. What is saltatory propagation?
8. Define erythropoiesis.
9. Write down the significance of breast feeding.
10. Mention any two functions of Calcium and Iron.

(10 x 1 = 10 Marks)

B. Answer any ***ten*** questions in two or three sentences each. Each question carries 2 marks:

11. What is jaundice? Mention different types.
12. What are the various categories of bioluminescence?
13. What is enteric nervous system?
14. Write the difference between simple goitre and exophthalmic goitre.
15. Differentiate between myogenic heart and neurogenic heart. Give examples.
16. What is aphaeresis? Mention its applications.
17. Name and specify the role of different compartments of ruminant stomach.
18. State the difference between muscle fatigue and muscle twitch.
19. Comment on the significance of dietary fibres.
20. How fresh water fish do osmoregulation?
21. Enumerate the significance of glial cells.
22. Explain any one respiratory syndrome of new born.

(10 x 2 = 20 Marks)

C. Answer any ***five*** questions in not more than a paragraph each. Each question carries 6 marks:

23. Explain the mechanism of action of insulin and thyroxin.
24. Enumerate the neuroendocrine glands and their hormones in insects.
25. Explain the role of hormones in female sexual cycle.
26. Describe the significance of countercurrent mechanism in urine formation.
27. Explain the physiological or biochemical changes during muscle action.
28. Explain Urea cycle.
29. Comment on various mechanisms involved in blood coagulation.
30. Write an account of neurophysiological control of respiration.

(5 x 6 = 30 Marks)

D. Write essays on any ***two*** of the following. Each question carries 10 marks:

31. Describe the hormonal interactions between hypothalamus and hypophysis. Give an account on the role of pituitary hormones.
32. Discuss the EM structure of myofilaments. With suitable diagrams explain the physical changes during skeletal muscle contraction.
33. Explain the different ways of transport of respiratory gases.
34. With the help of diagrams, explain the mechanism of nerve impulse transmission.

(2 x 10 = 20 Marks)

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