C 60085 (Pages : 2) Name.....

Reg. No.....

# SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2019

(CUCBCSS)

Zoology

## ZOL 6B 11—PHYSIOLOGY AND ENDOCRINOLOGY

Time : Three Hours Maximum : 80 Marks

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

1 In which form most of the carbon dioxide is transported in blood ?

2 Name two agranulocytes.

3 Name the blood corpuscle that is most important in blood clotting.

4 Name two hormones secreted by hypothalamus.

5 Name the most important ion that is involved in blood clotting.

6 What is sphygmomanometer ?

7 What are systole and diastole ?

8 What is loop of Henle ?

9 What is sarcomere ?

10 Name two hormones that are catecholamines.

(10 × 1 = 10 marks)

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

11 What is "insulin shock" ?

12 What is pace maker ?

13 Explain external respiration and internal respiration.

14 What is balanced diet ?

15 What is Hamburger phenomenon ?

16 Write notes on acromegaly.

17 Briefly describe the structure of a vertebrate erythrocyte.

**Turn over**

18 What are phagocytes ? Name two phagocytes among blood corpuscles.

19 Differentiate tubular hearts and chambered hearts with examples.

20 What is cretinism ?

21 What is the physiological function of insulin at cellular level ?

22 Explain two physiological effects of thytoxine.

(10 × 2 = 20 marks)

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

23 Explain muscle twitch.

24 Write notes on ECG with a diagram.

25 Describe the hormonal control of digestion in the stomach.

26 Explain the Oxygen dissociation curve and its significance with the help of a diagram.

27 Describe the composition of human blood.

28 Describe Cori cycle.

29 With the help of a labelled sketch, describe the structure of a synapse.

30 Explain the role of sex hormones in menstrual cycle.

(5 × 6 = 30 marks)

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

31 Describe the ultrastructure of a striated muscle fibre. Explain the physiology and chemistry of muscle contraction. Illustrate your answer with suitable diagrams.

32 Describe the physiology involved in the transmission of nerve impulses along a nerve fibre. Illustrate your answer with suitable sketches.

33 With the help of labelled sketches, describe the process of urine formation in man.

34 Describe the method of transport of carbon dioxide between the lungs and tissues.

(2 × 10 = 20 marks)