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Name.....

Reg. No..... 77

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2015

(U.G.—CCSS)

Core Course—Zoology

ZO 5B 11—BIOCHEMISTRY, PHYSIOLOGY AND ENDOCRINOLOGY

(2009—2012 Admissions)

Time : Three Hours

Maximum : 30 Weightage

1. Answer all *twelve* questions. Each question carries $\frac{1}{4}$ weightage :

A. Objective type questions :

1 Which of the following is not a Disaccharide ?

- (a) Maltose. (b) Sucrose.
(c) Lactose. (d) Galactose.

2 Biuret test is used for the detection of :

- (a) Protein. (b) Lipids.
(c) Polysaccharide. (d) Monosaccharide.

3 Adenosine is composed of Adenine and

- (a) Ribose. (b) Deoxyribose.
(c) Phosphate. (d) Glucose.

4 Most abundant leucocytes in human blood is :

- (a) Monocytes. (b) Lymphocytes.
(c) Neutrophils. (d) Eosinophils.

B. Name the following :—

- 5 Single contraction of a muscle to a stimulus.
6 The hormone known as "Birth hormone".
7 RNA molecule with catalytic property.
8 Structural polysaccharide in the exoskeleton of Insects.

C. Fill up the blanks :

- 9 Conversion of Ammonia to Urea takes place in the organ _____.
10 Absorbed fat is transported through lymph in the form of _____.

Turn over

11 Inulin is the polymer of _____.

12 Thick filaments in muscle fibres are formed of the protein _____.

(12 × ¼ = 3 weightage)

II. Short answer questions (Answer all *nine* questions):

13 What is Ninhydrin reaction?

14 Explain Agglutination.

15 What are Globular proteins?

16 Explain All or None law.

17 Write note on Brown fat.

18 What are Co-enzymes?

19 Describe Chemi-osmotic hypothesis.

20 Write note on Synaptic transmission of impulse.

21 Explain Osmoconformers.

(9 × 1 = 9 weightage)

III. Short answer questions (Answer any *five* questions):

22 What are Prostaglandins? Mention their functions.

23 Describe different methods of DNA repair.

24 Explain Transamination and Deamination.

25 Describe Cori's cycle.

26 Describe Neurogenic and Myogenic heart.

27 Describe the structure of ATP.

28 Explain Hypothalamus as an endocrine gland.

(5 × 2 = 10 weightage)

IV. Essay questions (Answer any *two* questions):

29 Describe the mechanism of action of Peptide hormones.

30 Explain the ultrastructure of a Striated muscle fibre.

31 Explain the mechanism of Enzyme action and various theories of enzyme action.

(2 × 4 = 8 weightage)