

Roll No.

(07/21-II)

13715

M. Sc. EXAMINATION

(For Batch 2017 & Onwards)

(Fourth Semester)

ZOOLOGY

ZOO-405A

Biochemistry

Time : Three Hours

Maximum Marks : 70

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. Write short notes on the following : $2 \times 5 = 10$

(a) Chemical structure of two oligosaccharides

(b) Chemical structure of two acidic amino acids

(3-43/29)B-13715

P.T.O.

- (c) Saponification value
- (d) Structure and function of A-DNA
- (e) Structure and utility of fat soluble vitamin.

Unit I

2. Describe structure and biological importance of important monosaccharides with examples. 15
3. Write short notes on the following : 7½ each
 - (a) Hetero-polysaccharides : structure and their biological significance
 - (b) Various reactions of monosaccharides.

Unit II

4. Explain the following :
 - (a) Different levels of structural organisation. 6
 - (b) Structure and properties of amino acids. 9

B-13715

2

5. Describe classification of proteins citing suitable examples. 15

Unit III

6. Write notes on the following :
 - (a) Structure and biological functions of cholesterol. 10
 - (b) Iodine number and acid value. 5

7. Describe classification of fatty acids with characteristics of each group. 15

Unit IV

8. Write short notes on the following : 7½ each
 - (a) Double helical model of DNA
 - (b) Structural polymorphism of DNA.
9. Describe the structure and properties of purines and pyrimidines. 15

(3-43/30)B-13715

3

190