

S.No. 1756

12UBCA01

(For the candidates admitted from 2012-2013 onwards)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

First Semester

Allied – BIOCHEMISTRY – I

(Common for Biotechnology/Microbiology)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define stereoisomers.
2. Differentiate between homo and heteropolysaccharides.
3. What are basic aminoacids? Give examples.
4. Define complete proteins.
5. Define active site of enzyme.
6. What is Katal?
7. What are glycolipids? Give examples.

8. Define Iodine number.
9. Why Vitamin D is known as antirachitic vitamin?
10. Name the symptoms of Pellagra.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Describe the structure and importance of Lactose.

Or

- (b) Explain the importance of Hyaluronic acid.

12. (a) Discuss the classification of aminoacids with suitable examples.

Or

- (b) Explain the bonds responsible for protein structure.

13. (a) Comment on Lock and key model of enzyme catalysed reaction.

Or

- (b) Derive the Michaelis-Menten equation.

14. (a) Give a brief note on Rancidity and antioxidants.

Or

- (b) Differentiate saturated and unsaturated fattyacids with examples.

15. (a) Discuss the classification of vitamins with examples and their occurrence.

Or

- (b) Mention the biochemical functions of Vitamin E.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE out of Five.

16. Discuss the oxidation and reduction reactions of glucose.

17. Describe the secondary structure of proteins.

18. Explain the classification of enzymes with suitable examples.

19. Discuss about the classification and importance of Lipoproteins.

20. Explain the occurrence, biochemical functions and deficiency symptoms of Vitamin B<sub>1</sub>.