

SECOND YEAR B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2005**Part III—Biochemistry Main****Paper II—GENERAL BIOCHEMISTRY**

Time : Three Hours

Maximum : 55 Marks

Part A*Answer any ten questions. Each question carries 2 marks.*

1. Give the structure of starch and how it gets hydrolysed ?
2. What is emulsification of fats ?
3. Name the bile acids isolated from human bile.
4. Write the Siegfried's Carbamino reaction.
5. What happens when aminoacids react with
 - (i) 1 Fluoro - 2,4 Dinitrobenzene
 - (ii) CO₂.
6. Write any two methods of Protein denaturation.
7. Give the structures of Retinol and Retinal.
8. What is the mechanism of action of penicillin ?
9. Define specific activity and International unit of enzyme activity.
10. How does sphingomyelin differ from a ganglioside in structure ?
11. What is meant by primary structure ?
12. Write the structure of any two compounds which contain quinoline and isoquinoline rings.

(10 × 2 = 20 marks)

Part B*Answer any five questions. Each question carries 5 marks.*

13. What are lipids ? Explain the biological significance of lipids.
14. Describe a method of Purification of enzymes.
15. How are aminoacids separated by chromatography ?
16. How are monosaccharides classified ? Give examples.
17. Explain allosteric inhibition with an example.
18. How are unsaturated fattyacids synthesized ?
19. Explain the Sanger's method of sequencing aminoacids in polypeptides.

(5 × 5 = 25 marks)

Part C*Answer any one question.*

20. Discuss in detail the different types of enzyme inhibition.
21. Describe the α-helical and β-pleated sheet structures of proteins.

(1 × 10 = 10 marks)