

FINAL YEAR B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2005**Part III—Biochemistry Main****Paper III—PHYSIOLOGICAL CHEMISTRY**

Time : Three Hours

Maximum : 55 Marks

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

1. What is resting potential ?
2. Write the reaction catalysed by carbonic anhydrase.
3. What is Sickle cell anemia ?
4. Write the structure of aldosterone and thyroxine.
5. Name the hormones of posterior pituitary and pancreas.
6. What is cori cycle ?
7. Write any one function of Copper and Zinc.
8. Define water balance of the body. How is it regulated by the Kidney ?
9. Write the structure of hemoglobin.
10. Write the constituents of plasma proteins and mention any one of their functions.
11. Explain with one example the conjugation reaction of detoxification process.
12. What is BMR ?

(10 × 2 = 20 marks)

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

13. How are fats digested and absorbed ?
14. Explain the structure of myofibril. Add a note on muscle contraction.
15. Explain the oxygen dissociation curve.
16. Describe the structure of nephron with a neat diagram.
17. How is nerve impulse conducted along the axon ?
18. Write the hormones of adrenal cortex and explain their physiological role.
19. Describe the coagulation process of blood through intrinsic factors.

(5 × 5 = 25 marks)

Part C*Answer any one question. Each question carries 10 marks.*

20. Write notes on :
 - (a) Iron metabolism, absorption and transport.
 - (b) Respiratory acidosis and alkalosis.
21. Describe the transportation of respiratory gases between lungs and body tissues.

(1 × 10 = 10 marks)