

(2010 Scheme)

Biochemistry and Nutrition

Time : 3 hrs

Max marks : 100

- **Answer all questions**
- **Draw diagrams wherever necessary**

Essays:

(2x10=20)

1. Define gluconeogenesis. Describe the steps of gluconeogenesis and a note on energetics and regulation. (1+5+2+2)
2. Explain the sources, biochemical functions and deficiency manifestations of vitamin C (1+5+4)

Short notes:

(10x5=50)

3. Metabolism of HDL
4. Phospholipids
5. Competitive inhibition
6. Metabolic acidosis
7. Biochemical functions of copper
8. Transamination
9. Steps of urea cycle
10. Principles of colorimetry.
11. Radioimmunoassay
12. Protein energy malnutrition

Answer briefly:

(10x3=30)

13. Biological value
14. Scurvy
15. Cystatin C
16. Maple syrup urine disease
17. Aspartic acid
18. Lipotropic factors
19. G₆PD deficiency
20. Bile salts
21. Obesity
22. Hartnup disease