

Second Year B.Sc Optometry Degree Supplementary Examinations –
June 2015

Nutrition & Biochemistry

Time : 3 hrs

Max marks : 80

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

Essays

(2x15=30)

1. Describe the dietary sources, requirement and metabolism of iron. Add a note on the causes and manifestations of iron deficiency. (1+1+5+4+4=15)
2. Explain the steps of beta oxidation of palmitic acid, giving its energetics.

Short notes

(5x5=25)

3. Lens metabolism.
4. Calcitriol.
5. Ketoacidosis.
6. Digestion and absorption of carbohydrates.
7. Protein energy malnutrition.

Answer briefly

(10x2 = 20)

8. Proteinuria.
9. Antioxidants.
10. Significance of HMP shunt pathway.
11. Coenzyme functions of niacin.
12. Hereditary fructose intolerance.
13. Methanol poisoning.
14. Phospholipids.
15. Folate antagonists.
16. Carnitine.
17. Galactosemia.

One word answer

(5x1 = 5)

18. Name a biotin antagonist.
19. is an active pump mechanism within the endothelium which pushes out the aqueous which has entered the cornea.
20. The lens contains soluble proteins called
21. Deficient enzyme in phenyl ketonuria.
22. Normal pH of plasma is