

**Q.P. Code: 221013**

**Reg. No.:.....**

**Second Year B.Sc Optometry Degree Regular/Supplementary  
Examinations November 2024  
Nutrition, Biochemistry & Pharmacology  
Section A: Nutrition, Biochemistry  
(2016 scheme)**

**Time: 2 hrs**

**Max marks: 40**

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space**
- Answer all parts of a single question together • Leave sufficient space between answers**
- Draw table/diagrams/flow charts wherever necessary**

**Essay: (10)**

1. Describe the sources, daily requirement, biological functions and deficiency manifestations of Vitamin A. (1+1+4+4) (3x5=15)

**Short Notes:**

2. Importance of ocular biochemistry in ophthalmic practice
3. Metabolism of sulphur containing aminoacids
4. Malnutrition

**Answer Briefly: (5x2=10)**

5. Blood buffers
6. Fructose metabolism
7. Essential Fatty acids
8. Iron deficiency anemia
9. Metabolism of retina

**Fill in the blanks: (5x1=5)**

10. Glucose is reduced to sorbitol by -----
11. Amino acid necessary for heme synthesis is -----
12. Beta oxidation of fatty acids release -----
13. Porphyrias are genetic disorders of ----- metabolism
14. Normal fasting blood glucose value is -----

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