

Reg. No.:.....

**Second Year B.Sc Optometry Degree Supplementary Examinations
November 2024**

**Nutrition, Biochemistry & Pharmacology
(2014 scheme)**

Time: 3 hrs

Max marks: 80

- 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
- Write Section A and Section B in separate answer books. Do not mix up questions from Section A and Section B

Q.P. Code: 211013

Marks: 40

Section A: Nutrition & Biochemistry

Essay

(10)

1. Discuss in detail the formation of glucose from alanine. Add a note on the regulation of gluconeogenesis.

Short notes

(3x5=15)

2. Fatty acid Synthase Complex
3. Classification of aminoacids based on the structure and nutritional requirement
4. Catabolism of heme

Answer briefly

(5x2=10)

5. Ketosis
6. Functions of Albumin
7. Complications in the eye in Diabetes Mellitus
8. Discuss any two specificity of enzymes
9. Respiratory regulation of blood pH.

Fill in the blanks

(5x1=5)

10. Name any TWO tear substitutes.
11. Immunoglobulin that mediates allergy is.....
12. Albinism occurs due to defect in metabolism of the aminoacid
13. Write any TWO salient features of genetic code.
14. Aminoacids required for the synthesis of carnitine are.....

(P.T.O)

Section B: Pharmacology

Essay **(10)**

1. Classify diuretics with examples. Write about carbonic anhydrase inhibitors with its ophthalmic use and side effects.

Short notes **(3x5=15)**

2. Write about the long term complications of systemic glucocorticoid use. Give examples of two topical glucocorticoid drugs.
3. Calcium channel blockers.
4. Five ocular side effects of systemically used drugs

Answer briefly **(5x2=10)**

5. NSAIDs
6. Tobramycin
7. Tear substitutes
8. Common anti-viral agents in Ophthalmic use
9. Name two uses and adverse effects of digoxin

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

10. Scurvy, a deficiency treated with.....
11. Name ONE anti-malarial drug.....
12. Name ONE fluoroquinolone used locally in eyes.....
13. Name ONE local anaesthetic in ocular use.
14. Name ONE tricyclic antidepressant drug.....
