[LB 0212] **AUGUST 2012** **Sub. Code: 6005**

B.Sc. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

Q.P. Code : **806005**

Time : Three hours **Maximum : 100 marks**

(180 Mins) Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Classifications of proteins.	7	20	10
2. Bilirubin – Jaundice – significance of estimation of Bilirubin.	7	20	10
3. Serum enzymes of clinical interest.	7	20	10
II. Write notes on:			
1. Immunoglobulin.	4	10	5
2. Biological importance of carbohydrates.	4	10	5
3. Functions of calcium and phosphorous.	4	10	5
4. Enzyme inhibition.	4	10	5
5. Application of radioisotopes in medicine.	4	10	5
6. Electrophoresis.	4	10	5
7. Rhodopsin – Role in vision.	4	10	5
8. Phospholipids.	4	10	5
III. Write short answers on:			
1. Glycogen.	2	4	3
2. Vitamins – classification.	2	4	3
3. Isoelectric point and pH.	2	4	3
4. Buffers.	2	4	3
5. Wilson’s disease.	2	4	3
6. Transamination.	2	4	3
7. Hyperthyroidism.	2	4	3
8. Chromatography.	2	4	3
9. Gluconeogenesis.	2	4	3
10. Abnormal constituents of urine.	2	4	3

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[LC 0212] **FEBRUARY 2013** **Sub. Code: 6005**

B.Sc. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

***Q.P. Code :* 806005**

Time: Three hours **Maximum: 100 marks**

Answer ALL questions.

I. Elaborate on: **(3x10 =30)**

1. Elaborate on classification of fatty acids.
2. Write in detail about enzyme inhibition.
3. Explain in detail about iron.

II. Write notes on: **(8 x 5 = 40)**

1. Properties of carbohydrates.
2. Essential fattyacids.
3. Sources and physiological functions of Vitamin A.
4. Biochemical function of calcium.
5. Biological functions of protein.
6. Phospholipids.
7. Structure of protein.
8. Applications of radio isotopes.

III. Write short answers on: **(10 x 3 =30)**

1. What are polysaccharides. Give examples.
2. What are steroids?
3. How are vitamins classified?
4. What are isotopes?
5. What are enzymes?
6. List out the sources of vitamin A.
7. Give the principle of chromatography.
8. What is xerophthalmia.
9. What is hyperlipidemia?
10. What is glucagon?

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[LD 0212] **AUGUST 2013** **Sub.Code :6005**

B.SC. OPTOMETRY
FIRST YEAR
PAPER IV – BASIC BIOCHEMISTRY (I & II)
Q.P. Code: 806005

Time: Three hours **Maximum : 100 Marks**

Answer All questions

I Elaborate on: **(3x10 =30)**

1. Describe in detail about the various steps involved in glycolysis.
2. Explain the classification, sources and functions of vitamins.
3. Give a detailed answer on types of enzyme inhibition.

II. Write short notes on **(8X5 =40)**

1. Cellulose – sources and functions.
2. Triglycerides.
3. Functions of sodium and potassium.
4. Functions of proteins.
5. Factors affecting enzyme action.
6. Biological functions of insulin.
7. Biological significance of urea.
8. Classification of enzymes.

III. Short answers on. **(10X3 =30)**

1. What is hypervitaminosis.
2. What is keratomalacia.
3. What is stereoisomerism.
4. What are chylomicrons.
5. What is a disaccharide.
6. Write about Diabetes mellitus.
7. Give the principle of spectrophotometer.
8. Write about Tears.
9. Give any three functions of copper.
10. Functional proteins.

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[LE 0212] **FEBRUARY 2014** **Sub.Code:6005**

B.SC. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

Q.P. Code: 806005

Time: Three hours **Maximum : 100 Marks**

Answer all questions

I Elaborate on: **(3x10 =30)**

1. Define sources, Functions and deficiency manifestations of Vitamin A
2. HMP Shunt pathway and its significance
3. Classify enzymes, Describes the different types of enzyme inhibition add a note on clinical Importance of enzymes

II. Write short notes on: **(8X5 =40)**

1. Homopolysaccharides
2. Homeostasis of Calcium
3. Activation of vitamin D
4. GTT
5. Omega Oxidation
6. Plasma Proteins
7. Glutamine
8. Ketone Bodies

III. Short answers on: **(10X3 =30)**

1. Isoelecric pH
2. Rancidity
3. Branched chain Amino Acids
4. Transamination
5. Hypokalemia
6. Beri Beri
7. Bile pigments
8. Rate limiting enzymes of Glycolysis
9. Selenium
10. Keratan Sulphate

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[LF 0212] **AUGUST 2014** **Sub.Code :6005**

B.Sc. OPTOMETRY
FIRST YEAR
PAPER IV – BASIC BIOCHEMISTRY (I & II)
Q.P. Code: 806005

Time: Three hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3x10 =30)**

1. Michaelis – Menten Hypothesis.
2. Describe in detail about Vitamin A – Sources, RDA, Functions, deficiencies and hypervitaminoses.
3. TCA – cycle

II. Write short notes on: **(8x5 =40)**

1. Complex polysaccharides.
2. Essential & Non-essential Amino acids.
3. Phospholipids.
4. Factors affecting enzyme action.
5. Enzyme specificity.
6. Sources & Functions of Vitamin D & K.
7. Functions of Na^+ & K^+
8. Synthesis of palmitic acid.

III. Short answers on: **(10x3 =30)**

1. Stereoisomerism.
2. Mutarotation.
3. Glycoprotein.
4. Denaturation of proteins.
5. Essential Fatty Acids.
6. Active Site.
7. Dark adaptation time.
8. Wilsons disease.
9. Insulin.
10. Tears.

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[LG 0215] **FEBRUARY 2015** **Sub.Code :6005**

B.Sc. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

Q.P. Code: 806005

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Classification of Lipids.
2. Hormonal regulation of blood Glucose.
3. Kreb's cycle.

II. Write notes on: **(8 x 5 =40)**

1. Structure of protein.
2. Enzyme inhibition.
3. Co-enzymes.
4. Sources and Functions of Vitamin –A.
5. Gluconeogenesis.
6. Synthesis of Fatty acid.
7. Wald's visual cycle.
8. Jaundice.

III. Short answers on: **(10 x 3 =30)**

1. What is Isomer?
2. Functional proteins.
3. Nucleoproteins.
4. What are steroids?
5. Colour vision.
6. Beri- Beri.
7. Goitre.
8. Transamination.
9. Rhodopsin.
10. Solution.

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[LH 0815] **AUGUST 2015** **Sub. Code: 6005**

B.Sc. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

Q.P. Code: 806005

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(3 x 10 = 30)**

1. Discuss about hormones involved in the regulation of blood glucose.
2. Explain in detail about Kreb's cycle.
3. Write the steps involved in the biosynthesis of cholesterol.

II. Write notes on: **(8 x 5 = 40)**

1. Write a brief note on polysaccharides.
2. Explain about any two types of electrophoresis.
3. Discuss about the types of enzyme inhibition.
4. What are the sources and functions of fat soluble vitamins?
5. Discuss about the structural classification of proteins.
6. Write the importance of calcium and phosphorus.
7. Write a short note on triglycerides.
8. Write a short note on tears.

III. Short Answers on: **(10 x 3 = 30)**

1. Define glycogen.
2. What are polypeptides?
3. What is hyperlipidemia?
4. Define co-enzyme.
5. Define hypervitaminosis.
6. Write the functions of selenium.
7. Define hormone.
8. What is the role of rhodopsin in vision?
9. Explain about percentage solution.
10. What is the significance of bilirubin estimation?

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[LI 0216] FEBRUARY 2016 **Sub.Code :6005**

B.Sc. OPTOMETRY

FIRST YEAR

PAPER IV – BASIC BIOCHEMISTRY (I & II)

Q.P. Code: 806005

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Describe in detail about Vitamin A – Sources, RDA, Functions, deficiencies and hypervitaminosis.
2. Elaborate on classification of fatty acids.
3. Explain briefly about Plasma Proteins. Add note on functions and clinical applications of albumin.

II. Write notes on: **(8 x 5 = 40)**

1. Electrophoresis.
2. Phospholipids.
3. Essential and semi essential Aminoacids.
4. Wald's Visual Cycle.
5. Tears.
6. Functions of Calcium.
7. Mucopolysaccharides.
8. Ketone Bodies.

III. Short answers on: **(10 x 3 = 30)**

1. Saponification Number.
2. Branched chain Amino Acids.
3. Write about percentage solution.
4. Bitot spots.
5. Buffers.
6. Radioisotopes.
7. Glycogen.
8. Eye damage caused by diabetes mellitus.
9. Prosthetic factors.
10. Significance of Bilirubin Estimation.

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[LJ 0816] AUGUST 2016 **Sub. Code: 6005**

B.Sc. OPTOMETRY
FIRST YEAR
PAPER IV – BASIC BIOCHEMISTRY-(I & II)

Q.P. Code: 806005

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

I. Elaborate on: **(3 x 10 = 30)**

1. Define sources, functions, deficiency manifestations and hypervitaminosis of Vitamin A.
2. Bilirubin – Jaundice – significance of estimation of Bilirubin.
3. Hormonal regulation of blood glucose.

II. Write notes on: **(8 x 5 = 40)**

1. Essential and non essential aminoacids.
2. B-oxidation of fatty acids.
3. Enzyme inhibition.
4. Homeostasis of calcium.
5. Chromatography.
6. Plasma proteins.
7. Biological importance of carbohydrates.
8. Applications of radio isotopes in medicine.

III. Short answers on: **(10 x 3 = 30)**

1. Glycogen.
2. Isoelectric pH.
3. Steroids.
4. Cataract.
5. Active Site.
6. Tears.
7. Dialysis.
8. Gluconeogenesis.
9. Rate limiting enzymes of Glycolysis.
10. Transamination.

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