

**MODEL PAPER**

**B.Sc BIOCHEMISTRY revised syllabus under CBCS**

**w.e.f. 2020-2021**

**B.Sc. DEGREE EXAMINATION**

**SEMESTER –III**

**Course: Enzymology, Bioenergetics and Intermediary Metabolism**

**Code: BCH-III**

**TIME : 3 HOURS**

**MAXIMUM MARKS :75**

**PART-A**

**ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS**

**EACH CARRIES FIVE MARKS**

**5x5=25 MARKS**

1. Active site.
2. Units of Enzyme activity.
3. High Energy compounds.
4. Enthalpy and Entropy.
5. Anaplerotic reactions.
6. CAM plants.
7. Ketone Bodies.
8. Alkaptonuria .

**PART-B**

ANSWER ALL QUESTIONS EACH CARRIES TEN MARKS

5x10=50 MARKS

9 (a) . Discuss the systematic Classification and Nomenclature of Enzymes.

OR

9 (b) . What are the various factors affecting enzyme activity.

10 (a) How is the electron transport system organised in the Mitochondria.

OR

10 (b) Explain the mechanism of Oxidative phosphorylation.

11(a) Discuss the reactions of the Citric acid cycle and its regulation.

OR

11 (b) Describe the light and dark reactions in photosynthesis

12(a) Describe the  $\beta$  oxidation of fatty acids and its regulation.

OR

12 (b) Write about the Biosynthesis of Cholesterol.

13 (a) Discuss the general reactions of amino acid metabolism.

( P.T.O )

OR

13 (b) Describe the catabolism of Tryptophan

G. D. Shekhar



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**B.Sc. DEGREE EXAMINATION**

**SEMESTER –IV**

**Course: Physiology, Nutritional and Clinical Biochemistry**

**Code: BCH-IV**

**TIME : 3 HOURS**

**MAXIMUM MARKS :75**

**PART-A**

**ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS**

**EACH CARRIES FIVE MARKS**

**5x5=25 MARKS**

1. Hemophilia
2. Sickle cell anaemia
3. Neurotransmitters
4. Goitre
5. Kwashiorkor
6. Biological value of a protein
7. Jaundice
8. Lipoproteins

**PART-B**

**ANSWER ALL QUESTIONS EACH CARRIES TEN MARKS**

**5x10=50 MARKS**

9 (a) Give a detailed account on digestion and absorption of carbohydrates and lipids.

OR

9 (b) Explain the mechanism of coagulation of blood

10(a) Explain the mechanism of formation of urine in the kidney

OR

10(b) Discuss the role of kidneys in maintenance of acid-base balance in the body

11(a) Discuss the physiological role and disorders of pituitary hormones

OR

11(b) Write briefly on the mechanism of action of hormones

OR

12(a) Define BMR. Mention the factors influencing BMR.

OR

12(b) Give an account of the source, biological role and deficiency disorders of fat soluble vitamins

13(a) Discuss about important liver function tests.

OR

13(b) Discuss about renal function tests.

*G. D. Shrivastava*