

1479

4

5. (a) Elaborate the citric acid cycle and its regulation. (12)
- (b) Describe the induced fit model of enzyme action. (3)
6. Write short notes on any **three** of the following : (5×3=15)
- (a) Disaccharides
- (b) Steroids
- (c) Glucose -Alanine cycle
- (d) Glycogenolysis

(500)

[This question paper contains 4 printed pages.]

30.12.2024(M)
Your Roll No.....

Sr. No. of Question Paper : 1479

Unique Paper Code : 223252230

Name of the Paper : Biochemistry : Basic concepts of Metabolism

Name of the Course : B.Sc. (Prog.) Life Science, Zoology Examination

Semester : III (ZOO-LS-DSC-09)

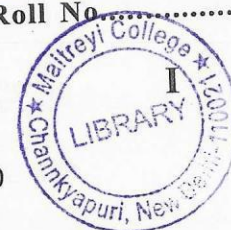
Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Draw neat, well labeled diagrams, wherever required.
3. Attempt **Four** questions in all.
4. Question No. 1 is compulsory.

P.T.O.



1. (i) Define the following terms (**any four**) : (4)

- (a) Epimerase
- (b) Glucogenic amino acids
- (c) Amphibolic Pathway
- (d) Zwitterion
- (e) Triglycerides
- (f) Glycogenesis

(ii) Differentiate between (**any three**) : (6)

- (a) Hexokinase and Glucokinase
- (b) Transamination and Deamination
- (c) Synthase and Synthetase
- (d) Saturated Fatty acid and Unsaturated Fatty acid
- (e) Alpha helix and Beta pleated structure of Proteins

(iii) Give the structure of the following : (5)

- (a) Citrulline
- (b) Triacylglycerol
- (c) Alanine
- (d) Uridine diphosphate glucose
- (e) Glyceraldehyde 3 phosphate

2. (a) Briefly describe the six major classes of enzymes. (6)

(b) Give a detailed account of beta-oxidation of Palmitic acid. (9)

3. Describe the pentose phosphate pathway. (15)

4. (a) Describe the electron flow through various complexes of electron transport chain. (8)

(b) Describe urea cycle with the help of chemical structures. (7)