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24-BC-42

**M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION
JUNE - JULY 2024**

BIOCHEMISTRY

**Paper - II
[Metabolism - II]**

*[Max. Marks : 75]**[Time : 3:00 Hrs.]**[Min. Marks : 26]*

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 a) Describe the role of Proteolytic enzymes in the digestion of Proteins. (7½ Marks)

b) Explain oxidative and non oxidative deamination of Amino acids. (7½ Marks)

OR

Write explanatory notes on the following -

i) Krebs Henseleit Urea cycle.

ii) Role of Pyridoxal phosphate in Transamination reactions.

Q. 2 Describe in detail the metabolism of Glutamate forming Amino acids. (15 Marks)

OR

Write notes on -

i) Glucogenic and Ketogenic Amino acids. (7½ Marks)

ii) Biosynthesis of Any two Non essential Aminoacids. (7½ Marks)

Q. 3 Describe the catabolism of Methionine. Explain the role of methionine as methyl group donor. (15 Marks)

OR

Describe catabolism of Phenylalanine and Tyrosine. (15 Marks)

Q. 4 Write in detail the Biosynthesis of AMP (Adenosine Mono Phosphate). (15 Marks)

OR

P.T.O.

Give a detailed account of Biosynthesis of Pyrimidine nucleotides. Add a note on 'Oroticaciduria'. (15 Marks)

Q. 5 Describe the Absorption, Biological role and deficiency disorders of the following mineral elements in human body -

i) Iron. (7½ Marks)

ii) Calcium. (7½ Marks)

OR

Give a detailed account of 'Heavy Metal Toxicity' in Human Body. (15 Marks)

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