

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 3rd Semester

1125

BIOCHEMISTRY

Paper– B : Protein and Nucleic Acid Metabolism

Time Allowed : Three Hours]

[Maximum Marks : 36

Note:– Attempt 5 questions in all. Question No. 1 is compulsory. Select any **one** question from each of the **four** Sections. All questions in each Section carry equal marks.

1. (a) Name the pathway leading to formation of niacin from tryptophan.
- (b) Name the enzyme required for conjugation of Bilirubin.
- (c) Parkinson's disease is associated with decreased synthesis of _____.
- (d) The color reaction given by aromatic amino acids is _____.
- (e) The disease due to lack of synthesis of pigment melanin is _____.
- (f) Name the enzyme of purine metabolism associated with immuno deficiency disease.
- (g) The parent nucleotide formed during biosynthesis of purines is _____.
- (h) The enzyme defect in acute intermittent porphyria is _____.

1×8=8

SECTION-I

2. Write short notes on :

(a) Transamination

(b) Ammonia toxicity.

4+3

3. Explain briefly :

(a) Rate limiting step of Urea cycle

(b) Oxidative deamination.

4+3

SECTION-II

4. (a) Give an account of specialised products of glycine.

(b) Describe the synthesis of S-adenosyl methionine and its transmethylation reactions.

4+3

5. (a) Discuss the metabolism of tyrosine.

(b) Briefly explain Phenylketonuria.

4+3

SECTION-III

6. (a) Describe the formation of glutathione and its significance.

(b) Briefly describe glutamate synthesis and its products.

4+3

7. (a) Describe the synthesis of creatine and its role in the body.

(b) Discuss cysteine-homo cysteine metabolism.

4+3

SECTION-IV

8. (a) Describe the degradation of purine nucleotides.
(b) Mention the compounds that contribute to formation of purine ring. 4+3
9. (a) Illustrate biosynthesis of heme and its regulation.
(b) Write a note on obstructive Jaundice. 4+3

Time Allowed: Three Hours

Maximum Marks: 36

Note:- Attempt 5 questions. All Question No. 1 is compulsory. Select any one question from each of the four Sections. All questions in each Section carry equal marks.

(a) Name the pathway leading to formation of niacin from tryptophan.

(b) Name the enzyme required for conversion of Hb to Fe.

(c) Parkinson's disease is associated with decreased synthesis of

(d) The color reaction given by aromatic amine is

(e) The disease due to lack of synthesis of pyruvate carboxylase is

(f) Name the enzyme of protein metabolism associated with

(g) Name the nucleotide formed during biosynthesis of purines

(h) The enzyme defect in adult mucopolysaccharidosis is