KNT/KW/16/5214

Bachelor of Science (B.Sc.) Semester—VI (C.B.S.) Examination

METABOLISM—II

Paper—1

(Bio-Chemistry)

Time : Three Hours] [Maximum Marks : 50

N.B. :— All questions are compulsory and carry equal marks.

1. Explain activation of fatty acids and their entry into mitochondria for β-oxidation. Briefly describe the reactions of β-oxidation. 10

OR

Describe in detail HMP Shunt and it significance. 10

2. Describe the reactions of synthesis of Palmitic acid. 10

OR

(a) Describe biosynthesis of phosphatidyl choline. 5

(b) Describe the reactions for synthesis of Ketone bodies through HMG-COA pathway. 5

3. (a) Write in detail metabolic disorders of urea cycle and their treatment. 5

(b) Explain Oxidative deamination of amino acids. 5

OR

(c) Explain in detail Urea Cycle. 10

4. Describe the de novo biosynthesis of inosinic acid (IMP). 10

OR

(a) How is purine biosynthesis regulated ? 5

(b) Write a note on Gout and its treatment. 5

5. Answer any **TEN** :

(i) Write the structure of phosphatidyl inositol. 1

(ii) Name the end product of purine catabolism. 1

(iii) Name the amino acid involved in transamination. 1

(iv) Double bonds are introduced in a saturated fatty acid by _____ enzyme. 1

(v) Write the structure of Guanylic acid (GMP). 1

(vi) What is Ketoacidosis ? 1

(vii) β oxidation of fatty acids occurs in which organelles ? 1

(viii) How many ATPs are produced when a 16 carbon saturated fatty acid is oxidized completely to CO_2 and H_2O ? 1

(ix) Name any one hormone controlling the mobilisation of triacylglycerols. 1

(x) Histidine is converted to histamine by _____ reaction. 1

(xi) Phenylketonuria results due to the absence of which enzyme ? 1

(xii) Name the enzyme complex involved in conversion of ribonucleotides to deoxyribonucleotide. 1