

B.Sc. (Hons) FNS Semester-2 (NEP) Examination**DSC-M-103 (T)****Nutritional Biochemistry****Time : 1-00 Hours]****April-2024****[Max. Marks : 25****Question 1 Write the following**

- (i) Define: Enzymes. Explain its specificity of enzyme and its types. (5 Marks)
- (ii) Write a short note on active transport of molecules across the membrane. (5 Marks)

OR

- (i) What are various functions of coenzyme and cofactors. Give an example. (5 Marks)
- (ii) Explain passive diffusion and facilitated diffusion with an example. (5 Marks)

Question 2 Write the following

- (i) Explain steps of TCA cycle and its role in energy generation. (5 Marks)
- (ii) Write a short note on fatty acid oxidation pathway of lipid metabolism. (5 Marks)

OR

- (i) Explain types, compositions and role of lipoproteins. (5 Marks)
- (ii) Explain urea cycle and its importance in metabolism. (5 Marks)

Question 3 Attempt any five out of six**(5 Marks)**

- (i) What are properties and composition of an active site of an enzyme?
 - (ii) What are the components of pyruvate dehydrogenase complex?
 - (iii) What are the fates of pyruvate in metabolic pathways?
 - (iv) What is futile cycle? Explain its role.
 - (v) What is ketoacidosis?
 - (vi) Explain amino acid deamination reaction.
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