

DCT-1603120102010200 Seat No. _____

M. Sc. Biochemistry (Sem. I) (CBCS) Remedial Examination

August - 2022 CBC-2: Metabolism Time : $2\frac{1}{2}$ Hours] [Total Marks: 70 1 Answer briefly any seven of the following questions: 14 Define term: Metabolism **(2)** Define term: Decarboxylation What do you mean by amino acids degradation pathway? **(4)** Role of carnitine in oxidation of long chain fatty acids. (Mitochondrial). Define term: Gluconeogenesis. (5)Three stages of cellular respiration (6) Why digestion & absorption of triglycerides in small intestine and affected when bile juice secretion is blocked during obstructive jaundice. Brief account of inhibitors of ATP synthesis. (8)Why Oxidation of FADH2 by mitochondrial etc. & (9)oxidative phosphorylation produces one ATP less as compared to that of the NADH. (10) Define term: Carbohydrate Metabolism. 2 Answer any two of the following questions: 14 Pentose phosphate pathway: Significance & non oxidative phase (1)

- (2) Physiological & metabolic importance.
- (b) Write about the Gluconeogenesis.
- (c) Write about Citric Acid Cycle.

Write about the Glycolysis 7 3 (a) (b) Write about the Oxidative deamination of amino acids 7 and explain with examples. OR 7 Give detailed note on Urea cycle with diagram. (c) 7 (d) Write note on Protein degradation. Answer the following questions: 14 4 De Novo biosynthetic pathway for purine and pyrimidine nucleotide. β - oxidation of saturated fatty acids process of (b) activation, transport and β - oxidation of fatty acids. 5 Answer the following questions: (any two) 14 Digestion and absorption of lipids. (a) Write about the inhibitor of ETC. (b) (c) Write about the architecture of Mitochondrion. (d) Outline about role of CoQ in mitochondrial ETS.