

**MASTER OF SCIENCE (DIETETICS AND  
FOOD SERVICE MANAGEMENT)  
(M.Sc.DFSM)**

**Term-End Examination**

**MFN-002 : NUTRITIONAL BIOCHEMISTRY**

*Time : 2½ Hours]*

*[Maximum : Marks : 75*

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**Note:** Answer four questions in all. Question no-1 is compulsory.

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1. (a) What are simple sugars? Give general formula. 2
- (b) Explain saponification 2
- (c) What is peptide bond? 2
- (d) Give active form of Niacin 1
- (e) What are Holoenzymes? 2
- (f) Explain, What the are free radicals? 2
- (g) Give role of copper in blood clotting. 2
- (h) What is Galactosemia? 2
2. (a) What do you understand by enzyme inhibition? Explain with examples.
- (b) Explain the process of digestion in stomach.



- (c) What is physiologically important role of nucleotide in our body?  $5 \times 4 = 20$
- (d) How proteins are classified in different structural levels?
3. (a) What are anaplerotic reactions?  $4 \times 5 = 20$
- (b) What is gluconeogenesis? What are its substrates?
- (c) Give account of energy production in glycolysis.
- (d) Explain briefly  $\beta$ -oxidation in fatty acids.
- (e) What is hyperlipoproteinemia? How it is classified?
4. (a) What happens if oxidised LDL circulates freely in system?  $5 \times 4 = 20$
- (b) Give role of Vit-A in vision,
- (c) Give functions of ascorbic acid.
- (d) Explain the role of magnesium in metabolic and hormone action.
5. (a) Give role of Insulin.  $4 \times 5 = 20$
- (b) Write short note on Nieman's pick disease.
- (c) Give brief account of sickle cell anaemia.
- (d) How oxidative decarboxylation is brought about in MSUD.
- (e) What is PKU