

2016

M.Sc. Part-I Examination

DIETETICS AND COMMUNITY NUTRITION MANAGEMENT

PAPER—I (Unit-2)

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Question No. 1 and any four from the rest.

1. Answer any *five* of the following : 5×2

(a) What is homoglycan ?

(b) What is isoelectric pH ?

(c) What is prosthetic group ?

(d) Write the full form of NADP and FMN.

(e) What is omega (ω) oxidation of fatty acid ?

(Turn Over)

- (f) Mention the symptoms of Ca deficiency.
- (g) What are trace elements? Give examples.
- (h) Mention the significance of essential amino acids.
2. (a) Describe the process of hexose monophosphate shunt pathway with special reference to transketolase and transaldolase.
- (b) State the significance of the pathway.
(5+1+1)+3
3. (a) Classify enzymes with proper examples.
- (b) Discuss the competitive inhibition of enzyme citing a suitable enzyme with its kinetics.
4+(2+4)
4. (a) What are essential fatty acids?
- (b) Describe the process of β -oxidation of fatty acids mentioning the role of carnitine.
Give the energetics of this process.
1+(5+1)+3

5. (a) Mention the important dietary sources and RDA of iron.
(2+1)+(2+3+2)
- (b) State the absorption, function and deficiency symptoms of iron in our body.
6. (a) How urea is formed in our body?
(b) What is positive nitrogen balance?
(c) What do you mean by 'Protein quality'?
5+2+3
7. (a) Write about the energetics and regulation of glycolysis.
(b) How blood sugar is regulated in our body?
6+4
8. (a) What is ubiquitination? How does it help in protein degradation?
(b) Discuss the significance of plasma LDL-Cholesterol and HDL-Cholesterol in hypercholesterolemia.
(2+4)+4

9. Write short notes on :

4×2½

(a) Transamination ;

(b) Fatty liver ;

(c) Amino acid pool ;

(d) Km.