2014

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 : 2×5

(a) What do you mean by peptide bond ?

(b) Write the full form of NAD and FMN.

(c) Mention the isozymes of lactate dehydrogenase.

(d) What is 'α-oxidation' of fatty acid ?

(e) Mention symptoms of iodine deficiency.

(f) Define isoelectric pH.

(g) What are homoglycans and heteroglycans

(h) Define iodine no.

2. (a) What is anaerobic glycolysis ?

(b) Describe the process of anaerobic glycolysis mentioning rate limiting steps.

2+(5+3)

3. (a) Describe the pathway of urea synthesis.

(b) Discuss the mechanism of transamination.

6+4

4. (a) How do long chain fatty acids enter into the mitochondria ?

(b) State the process of β-oxidation of fatty acid.

(c) Why it is considered the major pathway of fatty acid oxidation ?

3+5+2

5. (a) How Lineweaver-Bink plot is obtained from Michaelis-Menten equation ? Draw the curve and state why it is called double reciprocal plot ?

(b) Classify the enzymes with proper examples.

(2+2+1)+5

6. (a) Write the RDA of iron and sources.

(b) Describe the functions and deficiency symptoms of iron.

(c) How absorption of iron may be facilitated in our body ?

(1+2)+(3+2)+2

7. (a) State briefly the process of transcription of prokaryotes.

(b) What is ubiquitinization ?

7+3

8. (a) Describe the different phases of HMP shunt pathway with special reference to its enzymes.

(b) State the significance of this pathway.

(5+2)+3

9. (a) How can we measure the protein quality ?

(b) What are positive and negative nitrogen balance ?

6+4

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