2015

M.Sc.

1st Semester Examination

CLINICAL NUTRITION AND DIETETICS

PAPER—CND-102

Full Marks : 40

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.

Answer *Q. No. 1* and any *three* of the following.

1. Answer any *ten* of the following : 10×1

(a) What do you mean by allosteric enzyme ?

(b) What is co-enzyme ?

(c) What do you mean by house keeping gene ?

(d) What is the importance of HMP pathway ?

(e) What do you mean by amphoteric nature of protein ?

(f) What types of chemical bonds generally involved for the tertiary structure of protein ?

(g) Write any two deficiency syndrome of vitamin B12.

(h) Why vitamin D is known as hormone ?

(i) Name the location of Ornithin cycle.

(j) Mention one inborn error of protein metabolism.

(k) Write the name of one iron binding protein.

(l) What co-factor is involved in catalytic mechanism of glycogen phosphorylase ?

(m) What is a key molecule of glycogen synthesis ?

(n) What is the cause of development of galactosemia ?

(o) What is the location of b oxidation of fatty acid ?

2. (a) How NADPH is protecting the cell against ROS ?

(b) Write any two rate limiting steps of glycolysis.

(c) What are the role of hormones for the regulation of glycolysis ?

3+(2+2)+3

3. (a) What do you mean by futile cycle with example ?

(b) What is the importance of urea cycle in human ?

(c) Discuss the different steps of Ornithin cycle.

3+3+4

4. (a) Discuss briefly about transferase and isomerase types of enzymes with example.

(b) Km indicates substratre concentration—explain it from M-M equation.

(c) What do you mean by competitive and non-competitive inhibition ?

(2+2)+2+(2+2)

5. (a) What are the missense, nonsense and silent mutation with example?

(b) Write the different steps of b oxidation of fatty acid.

(2+2+2)+4

6. (a) Write the different sources of vitamin D.

(b) State the role of folic acid in DNA methylation.

(c) Write the deficiency symptoms of folic acid in human.

(d) Describe briefly the iron absorption.

2+3+2+3

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