2017

M.Sc.

1st Semester Examination

CLINICAL NUTRITION & DIETETICS

PAPER—CND-102

Subject Code—25

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.

Illustrate the answers wherever necessary.

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

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

   (a) Write name of two regulator of geycolysis.

   (b) What is the location of urea cycle ?

   (c) What is lethal mutation ?

(d) Write one example of transamination reaction.

(e) What is cause of development of galaetosemia ?

(f) Why is TCA cycle called amphibolic path way ?

(g) What do you mean by anaplerosis reaction ?

(h) Write the name of one inhibitor of TCA cycle.

(i) What is carnitine ?

(j) Define V_{max}.

(k) Write the name of one substrate of Isocitrate dehydrogenase.

(l) How many ATP has generated in aerobic path way of glycolysis.

(m) What is glycogenolysis ?

(n) Write the name of one glycoprotein.

(o) Write the name of one lipid storage disease.

2. (a) Write the role of NADPH and glutathione in protecting cells against ROS.

(b) Why HMP shunt is inactive in muscle ?

(c) Discuss the role of any two hormones in glycolysis.

$4+2+(2+2)$

3. (a) Discuss the different steps of urea cycle.

(b) Discuss the regulation of TCA Cycle.

(c) Why glycolysis can take place under aerobic or anaerobic conditons but TCA Cycle proceeds strictly under aerobic condition ? $4+4+2$

4. (a) Satate the different steps of β oxidation.

(b) What do you mean by protein sparing effect of carbohydrate.

(c) $V = \dfrac{1}{V\,max}$, when Km = [S]. Prove it.

5. (a) What is missense, Nonsense, Silent and neutral mutation—Discuss with exmaple.

(b) What do you mean by proteoglycan ? $(2+2+2+2)+2$

8. (a) State the slit gene post expression modification process.

(b) Write initiation of protein biosynthesis.

(c) State the role of tetracycline and chloramphenicol on protein synthesis. 4+4+2

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