

2013

M.Sc.

1st Semester Examination

NUTRITION & DIETETICS

PAPER—NUD-101

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.

Module—I

[Marks—20]

1. Answer any *five* questions of the following : 1×5
- (a) Write the name of the vitamin which acts as hormone.
 - (b) Give an example of antiport system.
 - (c) Write the full form of IP₃ and DAG.
 - (d) What do you mean by percentile in growth curve ?
 - (e) Write the names of any two milestones in the field of development of infant.

(Turn Over)

- (f) Write any two features of GLUT in general.
- (g) Write any one example of nongenomic function of steroid hormone receptor.
- (h) Write the names of any two nutrients as positive immuno modulator.
2. (a) "Nongenomic action of hormone is short casting than genomic action" — justify the statement citing any one example.
- (b) State the role of thyroxine and insulin on lipid metabolism with special reference to signal transduction process.

3+(2½+2½)

Or

- (a) Describe the reproductive growth in intrauterine life of embryo with special reference to hormone involved in sex development and differentiation.
- (b) "Thyroxine plays a key role in neural growth development in intrauterine life" — explain the statement in brief.
3. (a) "Protein is an important immunomodular" — establish the statement.
- (b) Write the cross-talk between cellular and humoral immunity.

5+3

4+3

Or

- (a) State the role of Vit B₁₂ and folic acid on erythropoiesis.
- (b) Describe the role of PTH on calcium absorption.
- (c) Write in brief about the role of gastrin on digestive juice secretion.

$$(1\frac{1}{2}+1\frac{1}{2})+3+1$$

Module—II

[Marks—20]

4. Answer any *five* questions of the following : 1×5
- (a) What do you mean by 'No threshold' in renal clearance?
 - (b) Write the density of LDL and HDL.
 - (c) Write the names of ingredients of renal dialyser fluid.
 - (d) Write the name of the nucleus which behaves as satiety centre.
 - (e) Write the function of osteoclast.
 - (f) What are the chemical ingredients of renal stone?
 - (g) Write the function of Troponin-C.
 - (h) Write the names of any two high energy phosphate containing bimolecules present in muscle.

5. (a) State the role of Leptin on food intake with special reference to the involvement of feeding centre.
- (b) Write in brief about renal threshold of Glucose and state its clinical importance.
- (c) "Diet composition influence kidney stone" — explain in brief. 3+(2+1)+2

Or

- (a) "Oxidised LDL-C is the major key factor for atherosclerosis" — establish the statement.
- (b) State the osteogenesis process in brief with special reference to calcium and protein. 4+(2+2)
6. (a) Write the role of Vitamin-A in scotopic vision.
- (b) Describe the energy source in short term physical activity.

4+3

Or

- (a) Write the brief the formation of HbA_{1C}.
- (b) Why HbA_{1C} is consider as valid sensor for diagnosis of diabetes ?
- (c) Write in brief on 'Thrust Centre'. 3+2+2
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