

2015

M.Sc.

1st Semester Examination

CLINICAL NUTRITION AND DIETETICS

PAPER—CND-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.

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

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

(a) Rupturation of blood vessel noted in

(i) Arteriosclerosis

(ii) Atherosclerosis

(iii) Lipogenesis

(iv) Obesity

(b) Executive caspase is

- (i) Caspase-8
- (ii) Caspase-9
- (iii) Caspase-3
- (iv) Caspase-2

(c) Antiapoptotic marker protein is

- (i) Bcl-2
- (ii) Bax
- (iii) Caspase-9
- (iv) P-53 Protein

(d) Stunting is monitored by

- (i) W/A
- (ii) H/A
- (iii) W/H
- (iv) MUAC/A

(e) All metabolic activities are collapsed in cell at the stage of

- (i) G_1 Phase
- (ii) G_0 Phase
- (iii) G_2 Phase
- (iv) S Phase

- (f) One of the signaling molecule of fixed model receptor is
- (i) 4 AMP
 - (ii) 5' AMP
 - (iii) 5' GMP
 - (iv) CBP
- (g) Dietary protein is associated with empowerment of
- (i) Cellular immunity
 - (ii) Humoral immunity
 - (iii) Herd immunity
 - (iv) Inborn immunity
- (h) Antioxidant type of nutrients modulate gene functions through binding of specific part of the gene known as
- (i) CRE
 - (ii) SRE
 - (iii) ARE
 - (iv) VRE
- (i) For RT-PCR study you will collect the specific biomolecule of the cell which is known as
- (i) DNA
 - (ii) mRNA

- (iii) tRNA
- (iv) sRNA
- (j) Growth factor modulates cells through
 - (i) JAK-STAT Pathway
 - (ii) MAP Kinase Pathway
 - (iii) Tyrosine Kinase Pathway
 - (iv) DAG Pathway
- (k) Pubertal Growth is controlled by
 - (i) Growth hormone
 - (ii) Growth hormone & Sex steroids
 - (iii) Sex steroids
 - (iv) Adrenal cortical hormone
- (l) Immediate energy source of skeletal muscle is
 - (i) CP
 - (ii) Glycogen
 - (iii) Stored fat
 - (iv) Myoglobin
- (m) The long G_0 stage noted in
 - (i) Epithelial cell
 - (ii) Nerve cell

- (iii) Germ cell
 - (iv) Haematopoietic cell
 - (n) Myoglobin is maximum in
 - (i) Slow twitch fiber
 - (ii) Fast twitch fiber
 - (iii) Intermediate twitch fiber
 - (iv) Both slow and fast twitch fiber
 - (o) Epigenetics is associated with alteration in gene function through
 - (i) Deletion
 - (ii) Duplication
 - (iii) Functional group addition to nitrogenous bases
 - (iv) Frame shift Mutation
2. (a) Write the features of mobile model receptor for signaling system.
- (b) Describe the steps of steroid hormone on specific gene expression.
- (c) Why nongenomic signal transduction pathway is not the prime way for modulation of cellular function?

2+6+2

3. (a) Write brief about the major events of cellular apoptosis.
- (b) Describe in short about the genomic status assessment of an apoptotic cell.
- (c) Write the name of any two molecular marker molecule for detection of a Cancer cell. 3+5+2
4. (a) Define renal clearance.
- (b) Describe the nature of major renal stones.
- (c) Write in brief about the food style for the management of renal stone. 2+4+4
5. (a) Define ergogenic aids.
- (b) Discuss the role of hormonal agent for changing endurance and Physical performance.
- (c) Describe the energy source in muscle for short distance runner. 2+5+3
6. (a) What do you mean by hypertrophy and hyperplasia ?
- (b) What is morula ?
- (c) Describe the role of hormonal and nutritional factors for controlling growth and development. (1+1)+2+(3+3)
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