

**2011**

**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 full forms of IRS and HSL.
  - (b) What do you mean by GLUT?
  - (c) What is the role of 'Ghrelin'?
  - (d) Write the names of any two domains or milestones for the assessment of development of Infant.
  - (e) Write the full form of BSF-I and MAF.
  - (f) Write the names of plexus present along the wall of G.I. tract.

*(Turn Over)*

(g) What do you mean by metabolic water?

(h) Write the Red-ox form of Vitamin-C.

2. (a) Write the differences between genomic and nongenomic signal transduction pathway.

(b) "Non-genomic CAMP signal transduction pathway is an important regulator of glucose metabolism in cell. Justify the statement citing the name of hormone"

3+1

Or

(a) "Iron plays a vital role on immuno modulation". Justify the statement from different components of immunity.

(b) Write in short on any two sensors for the assessment of growth at prenatal stage.

(c) Write the difference between reference value and standard value from the view of growth assessment

4+2+2

3. (a) Discuss about the role of hormones on reproductive growth in intrauterine life.

(b) "Hormones regulate water reabsorption from renal tubules." Justify the statement mentioning the role of any two hormones.

(c) State the process of bilirubin synthesis.

$2\frac{1}{2}+2\frac{1}{2}+2$

Or

- (a) Write in brief about nucleic acid digestion.
- (b) State in brief about the neural reflex for the regulation of gastric juice secretion.
- (c) What is the cause of obstructive jaundice? 3+2+2

**Module—II**

**(Marks : 20)**

4. Answer any five questions of the following : 1×5
- (a) Write any two types of cells present in bone.
  - (b) Write the names of any two food regulating centers.
  - (c) What is meant by glycosylated haemoglobin?
  - (d) Write the names of photosensitive pigments present in rod and cone cells.
  - (e) Write the distribution of plasma clearance.
  - (f) What do you mean by B-100 and B-48?
  - (g) Write the names of energy sources during test.
  - (h) Write the chemical nature of kidney stone.
5. (a) Discuss the cascade hypothesis for lipoprotein metabolism.
- (b) Why do LDL and HDL are considered respectively as atherogenic and antiatherogenic agents?

- (c) How foam cells are formed in hyperlipide condition? 5+2

Or

- (a) What is glucostatic hypothesis ?
- (b) "Reflexogenic and hormonal processes are immed regulators of satiety". Justify the statement.
- (c) Write in brief about the impact of thirst on w; homeostasic. 2+(2+2)
6. (a) Write the principle and procedure of urea clara value.
- (b) What do you mean by uncorrected and corrected u clearance value ?
- (c) Write the fundamental steps adopted in renal dialy (1+2)+2

Or

- (a) State in brief the process of induction hyperpolarization by bleaching of rhodopsin.
- (b) Mention in brief the involvement of vitamin A dimlight vision.
- (c) What is the role of troponin during muscle conti tion — State briefly. 3+2