

**MASTER OF SCIENCE (DIETETICS AND
FOOD SERVICE MANAGEMENT) (M.Sc. DFSM)**

Term-End Examination

December, 2015

MFN-004 : ADVANCE NUTRITION

Time : 3 hours

Maximum Marks : 100

- Note :** (i) Question No.1 is **compulsory**.
(ii) Answer **five** questions in **all**.
(iii) **All** questions carry **equal** marks.

1. (a) Define or explain the following in 2-3 lines each : **12**
- (i) Kilocalorie
 - (ii) Primary protein derivatives
 - (iii) Nephrotic syndrome
 - (iv) Megaloblastic anaemia
 - (v) Goitrogens
 - (vi) Bulimia.
- (b) Fill in the blanks : **4**
- (i) The daily recommended allowances for Vitamin A as retinol for infants 0-6 months is _____.
 - (ii) The chemical structure of thiamin was established by _____.
 - (iii) _____ one of the richest sources of Vitamin C.
 - (iv) DEXA method is based on a 3 - C model that divides the body into total body mineral, free lean mass and _____.

- (c) List **any two** functions of the following : **2+2**
 (i) Calcium
 (ii) Vitamin K.
2. Explain the following in brief : **5+5+5+5**
 (a) Goals and assumptions taken into account while estimating RDA.
 (b) Factors affecting BMR.
 (c) History of nutrition - an overview.
 (d) Energy requirements of infants.
3. (a) Describe digestion, absorption and metabolism of carbohydrates in the body. **15**
 (b) Enumerate the factors that affect Glycemic Index of foods. **5**
4. (a) Discuss the classification and functions of proteins. **8**
 (b) Describe the symptoms of protein deficiency. **8**
 (c) Classify lipids, give examples. **4**
5. (a) "Water is an essential but over looked nutrient". Comment on the statement. **5**
 (b) Explain the regulation of water balance in human body. **7**
 (c) Describe the structure and functions of Vitamin D. **8**
6. Discuss the functions, bio availability and consequences of deficiency of the following : **6+6+8**
 (a) Thiamine
 (b) Vitamin B₁₂
 (c) Iron

7. (a) What are other dietary factors with antinutritional effects? Explain any two of them. 8
- (b) Define an exchange list. What are the merits and limitations in the use of exchange list for planning diets? 8
- (c) Differentiate between IUGR and LBW. Explain their consequences on long term health. 4
8. Write short notes on **any four** of the following : 5+5+5+5
- (a) Effect of maternal malnutrition on lactation performance.
- (b) Growth and development in children.
- (c) Relevance of work capacity in sports nutrition.
- (d) Nutritional ergogenic acids.
- (e) Nutritional requirements for space mission.
- (f) Phytoestrogens.
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