

01903

**MASTER OF SCIENCE (DIETETICS AND  
FOOD SERVICE MANAGEMENT)**

**Term-End Examination**

**June, 2012**

**MFN-004 : ADVANCE NUTRITION**

*Time : 3 hours*

*Maximum Marks : 100*

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*Note : Attempt five questions in all. Question No. 1 is compulsory. All questions carry equal marks.*

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1. (a) Explain in 2 - 3 sentences only : 10
- (i) Estimated Average Intake Requirement
  - (ii) Thermic Effect of Foods (TEF)
  - (iii) Resistant Starch (RS)
  - (iv) Biological Value (BV)
  - (v) Cheilosis
- (b) Give one example for each of the following 5
- (i) Niacin - rich food source
  - (ii) Vitamin B1 (thiamin) deficiency symptom
  - (iii) Essential fatty acids
  - (iv) Compartment of body water
  - (v) Different forms of vitamin A

- (c) Fill in the blanks. 5
- (i) \_\_\_\_\_ are specific substances which are essential for proper functioning of certain enzymes.
  - (ii) \_\_\_\_\_ is needed for the conversion of tryptophan to niacin.
  - (iii) BMI of \_\_\_\_\_ is considered as underweight.
  - (iv) \_\_\_\_\_ is one of the hormone which regulates calcium concentration in the plasma.
  - (v) Keshan disease is caused due to deficiency of \_\_\_\_\_.
2. (a) With the help of an illustration, explain the concept of recommended dietary intake, upper intake level (UL) and the "safe range of intake". 10
- (b) Briefly explain the factors which influence the nutrient requirements. 10
3. (a) Discuss the components of energy requirement for children. 6
- (b) Briefly explain the digestion and absorption of carbohydrates in our body. 7
- (c) Briefly describe the functions of proteins in our body. 7

4. (a) Discuss the fat recommendations and explain what advice would you give to the general population regarding the choice of fats and oils in meeting the requirements. 8
- (b) What are fat soluble vitamins ? Give the functions and recommended dietary allowances of any one fat -soluble vitamin for the general population. 2+6+4
5. Explain the following briefly : 5+5+5+5
- (a) Zinc a unique trace element essential for life.
- (b) Dietary factors affecting iron absorption
- (c) Health benefits of polyphenol
- (d) Key functions of electrolytes in our body
6. (a) Briefly explain the relationship between maternal nutritional status and foetal outcome. 8
- (b) Which nutrient are of considerable importance during 2+2+2
- Infancy
  - Preschool years and
  - Adolescence years
- What points would you keep in mind while feeding any one of the above mentioned group of individuals so as to ensure good health ? Discuss briefly. 6

7. (a) Briefly explain the physiological changes and the dietary modifications in the diet of the elderly. **4+6**
- (b) Discuss the dietary recommendations and nutritional goals for a sportsperson under the following situations. **10**
- Pre-Exercise
  - During Exercise, and
  - During Recovery
8. Write short notes on *any four* of the following : **5+5+5+5**
- (a) Malnutrition-Effect on milk and Effect on Mother
  - (b) Dietary factors with antinutritional effects
  - (c) Role of folate in our body
  - (d) Nutritional requirement for space mission
  - (e) Nutritional management during emergencies.
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