

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

**Term-End Examination**

**December, 2016**

**MFN-004 : ADVANCE NUTRITION**

*Time : 3 hours*

*Maximum Marks : 100*

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

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1. (a) Explain the following in 2-3 sentences each : 10
- (i) Transfatty acids
  - (ii) Probiotics
  - (iii) Flavonoids
  - (iv) Gestational diabetes
  - (v) Provitamin A
- (b) List the condition caused by the deficiency of the following nutrients : 5
- (i) Riboflavin
  - (ii) Iodine (in children)
  - (iii) Selenium
  - (iv) Sodium
  - (v) Folate
- (c) Give one important function for each of the following nutrient/compound. 5
- (i) Vitamin E
  - (ii) Vitamin B<sub>12</sub>
  - (iii) Zinc
  - (iv) Phytoestrogens
  - (v) Polyphenols

2. (a) Briefly describe the factors/components which influence energy expenditure in case of children. 10
- (b) What are Recommended Dietary Allowances (RDAs) ? How are they derived ? Briefly explain the concept. 10
3. List any two 'Macronutrient' and two "Micronutrient" required by our body. Explain their physiological functions and also the consequences of inadequate intake of these nutrients. 4+8+8
4. Explain the following briefly : 5+5+5+5=20
- (a) Nutrient requirement and dietary modifications in the diet of elderly.
- (b) Measures to improve protein quality in the diet.
- (c) Transportation of fats in our body.
- (d) Consequences of disturbance in fluid balance.
5. (a) What are ergogenic aids ? Discuss their use and relevance for training and competition for sports person. 8
- (b) Enlist the dietary factors with anti - nutritional effects. Explain the effect of any one factor. 8
- (c) Comment on the interaction of Vitamin C and iron in our diet. 4

6. (a) Describe the physiological changes occurring during pregnancy and how they influence nutrient need during pregnancy. 10
- (b) List the nutrient needs (Recommended Dietary Intakes) for preschool children. 5
- (c) Elaborate on the common health/nutritional problems affecting infants in our country. 5
7. (a) What is meant by gene expression ? 5
- (b) List the health hazards associated with high altitude and give the nutrient requirement for high altitude. 2+6
- (c) Elaborate how nutrient requirement during space mission differ from normal recommendations. 7
8. Write short notes on any four of the following : 5+5+5+5=20
- (a) National programme targeting infant and preschoolers.
- (b) Composition of human milk and its suitability for child growth.
- (c) Limitations and Advantages of using an exchange list in planning a menu.
- (d) Health benefits of polyphenols.
- (e) Role of calcium, phosphorous and Vitamin D in bone formation.
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