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MFN-004

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

**( M.Sc. DFSM )**

**Term-End Examination, 2019**

**MFN-004 : ADVANCE NUTRITION**

**Time : 3 Hours]**

**[Maximum marks : 100**

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

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1. (a) Give one example for each of the following :[10]
- (i) Method of studying nutrient requirement
  - (ii) Non-digestive oligosaccharides
  - (iii) Essential amino acid
  - (iv) Provitamin A
  - (v) Fluid compartment of the body
  - (vi) Lifestyle classification
  - (vii) Component of energy expenditure

- (viii) Criteria for biochemical assessment of vitamin A status
  - (ix) National programme targeting adolescents
  - (x) Food rich in trans fatty acid
- (b) Explain the following in 2-3 sentences each:[10]
- (i) Mutual supplementation
  - (ii) Ergogenic Aids
  - (iii) Polyphenols
  - (iv) Probiotic
  - (v) Space food system
2. (a) How would you classify proteins based on amino acid composition ? [5]
- (b) Briefly discuss the factors that influence the basal metabolic rate. [10]
- (c) What is energy balance ? Explain briefly. [5]

3. (a) Differentiate between the following terms :  
[5+5=10]
- (i) RDI and DRV
- (ii) Saturated and polyunsaturated fatty acids
- (b) Briefly discuss the factors that influence human nutrient requirements. [10]
4. Explain the following in brief : [5+5+5+5=20]
- (a) High risk pregnancies
- (b) Obligatory losses of nutrients
- (c) Role of Folate in DNA synthesis
- (d) Protective role of Selenium as an antioxidant
5. (a) Give the composition of breast milk and benefits of breast milk in detail. [10]
- (b) "Maternal nutrition has direct impact on foetal growth and development." Justify the statement highlighting the nutrient needs of maternal period. [10]

6. (a) What type of diet would you plan for a pre-school child? Give the diet plan highlighting the nutrient needs and foods to include to meet the requirement. [10]
- (b) Explain the need of additional nutrients for an Athlete. [10]
7. (a) Discuss the nutritional implications of ageing and its management. [10]
- (b) Present a brief note on nutrition at high altitudes. [10]
8. Write short notes on **any four** of the following :  
[5+5+5+5=20]
- (a) Health benefits of phytoestrogens
- (b) Role of Calcium and Vitamin D in healthy bone formation
- (c) Consequences of Zinc deficiency
- (d) Selection of fats and oils for daily use.
- (e) Chronic energy deficiency and its consequences

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