

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

Term-End Examination

MFN-004 : ADVANCE NUTRITION

Time : 3 Hours]

[Maximum : Marks : 100

Note: Question No. 1 is compulsory. Attempt five questions carry equal marks.

1. (a) Define or explain the following in 2-3 sentences each, giving examples wherever possible. 2×5
- (i) Resistant starch
 - (ii) NDP Cal%
 - (iii) PAL
 - (iv) Bioavailability
 - (v) Mutual supplementation
- (b) List the essential amino acids required by our body: 3
- (c) Differentiate between prebiotics and probiotics giving examples. 2½
- (d) Classify fatty acids
- (e) Enlist the leoproteins 2

2. (a) What are the methods for studying the nutrient requirements? Describe briefly. 10
- (b) Differentiate between the following terms.
5+2½+2½
- (i) DRI and RDA
 - (ii) Safe requirement and subsistent requirement
 - (iii) Menimum requirement and maintenance requirement
3. (a) What is chronic energy deficiency? How will you assess chronic energy deficiency and what are its consequences? 2½+2½+5
- (b) What are the functions of water and electrolytes in our body? Discuss the consequences of disturbances in fluid and elidrolyte balance. 10
4. Explain the following briefly: 5+5+5+5
- (a) Vitamin E is useful in the protection of polyunsaturated fatty acids
 - (b) Folate plays an important role in reducing the risk of heart diseases and stroke.
 - (c) Role of B complex vitamincs in enzyme catelized reactions

- (d) Factors influencing absorption of calcium during pregnancy.
5. (a) What are the important components of dietary fibre? Describe the potential health benefits of dietary fibre.
- (b) What advice would you give to consumers regarding selection of fats and oils for their daily use and maximum health benefits? Your answer should highlight the requirement types and ratio of fats/oils in the diet.
6. (a) Briefly explain the role of the following in our diet. 5+5
- (i) Polyphenols
- (ii) Protease inhibitors
- (b) Explain the nutrient needs and dietary management for a: 5+5
- (i) Lactating women
- (ii) Adolescent girl
7. (a) What are the common nutritional deficiencies people tend to suffer during a calamity or emergency? What dietary advice and nutrient guidelines would you advocate to affected individuals during emergencies. 10

(b) Present the energy, carbohydrate and protein demands of: 5+5

(i) A sports person

(ii) Astronaut person on space mission

8. Write short notes on any four of the following :

5+5+5+5

(i) Food sources and functions of zinc in our body

(ii) Vitamin A requirement bioavailability and food sources in our diet

(iii) Recommendations for feeding infants 6-12 month of age

(iv) Determinants of poor pregnancy outcome

(v) Components of total energy expenditure.