

**MASTER OF SCIENCE DIETATICS AND FOOD
SERVICE MANAGEMENT**

Term-End Examination

June, 2014

MFN-04 : ADVANCE NUTRITION

Time : 3 hours

Maximum Marks : 100

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

1. (a) Differentiate between the following sets of terms : 10
- (i) RDA and DRI.
 - (ii) DLW technique of energy expenditure and factorial estimation of energy expenditure.
 - (iii) Dietary fibre and resistant starch. (RS)
 - (iv) Simple proteins and conjugated proteins.
 - (v) Essential fatty acids and trans fatty acid:
- (b) Fill in the blanks : 6
- (i) _____ is the predominant electrolyte in the ECF and _____ in the ICF.
 - (ii) _____ is the precursor of Vitamin A.

(iii) _____ is vital to the utilization of calcium and phosphorous in our body.

(iv) Vitamin K is stored in _____ tissues.

(v) FMN and FAD are the two major coenzyme derivatives of _____.

(vi) Niacin can also be synthesized in the liver from the dietary amino acid _____.

(c) Give two functions each of: 4

(i) Folate

(ii) Pyridoxine

2. Explain the following briefly : 5+5+5+5

(a) Probability concept of requirement vs risk of deficiency and excess intake.

(b) Concept of bioavailability of nutrients giving suitable examples.

(c) Factors affecting BMR

(d) Chronic energy deficiency and its consequences.

3. (a) Enumerate the Potential health benefits of dietary fibres. 6

(b) Briefly discuss the functions of proteins in our body. 8

- (c) Give the recommendations put forth by ICMR for choosing Cooking oils . 6
4. (a) How is the water balance maintained in our body? 7
- (b) Explain the antioxidant property of Vitamin E in context of protection of PUFA. 6
- (c) Give reasons why people on vegan diets are at risk of vitamin B₁₂ deficiency. What are its Consequences? 4+3
5. (a) Discuss the various factors influencing calcium absorption. 8
- (b) Enumerate the different indicators you may use to assess the iron status of individuals in a community. 6
- (c) Explain the consequences of zinc Deficiency and the importance of zinc for infants, children and pregnant women. 6
6. (a) What are Polyphenols? Describe their health benefits. 7
- (b) Discuss the various factors that influence our food choices. 7
- (c) What is a pre event meal? Discuss its relevance in the context of sport nutrition. 2+4

7. (a) Enumerate the consequences of malnutrition during pregnancy? 5
- (b) Present the nutrient requirement during lactation. 5
- (c) Which nutrients are of considerable importance during infancy and why? 5
- (d) Enumerate the special consideration to be kept in mind while planning meals for adolescents. 5
8. Write short notes on *any four* of the following: 5+5+5+5
- (a) Nutrient requirements at high altitude.
- (b) Types of foods suitable for space mission.
- (c) Common problems of preschoolers nutrition.
- (d) Guidelines for planning balanced diets for elderly.
- (e) Interaction of Vitamin C with Vitamin E and iron.

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