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MFN-004

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

M. SC. (DFSM)

Term-End Examination

June, 2023

MFN-004 : ADVANCE NUTRITION

Time : 3 Hours

Maximum Marks : 100

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

1. (a) List the disease/condition caused by the deficiency of the following nutrients in our body : 6
 - (i) Vitamin K
 - (ii) Niacin
 - (iii) Folate
 - (iv) Selenium
 - (v) Sodium
 - (vi) Zinc

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- (b) Give *one* important function for each of the following nutrient/substance : 6
- (i) Chromium
 - (ii) Vitamin B₁₂
 - (iii) Iodine
 - (iv) Polyphenol
 - (v) Pyridoxine
 - (vi) Potassium
- (c) Explain the following in 2-3 sentences each : 8
- (i) Phytoestrogens
 - (ii) Persistent starch
 - (iii) Transfatty acids
 - (iv) Mutual supplementation
2. (a) Briefly describe the factors/components which influence energy expenditure. 10
- (b) Enumerate the factors that are determinants of nutrient requirements. Explain giving examples. 10
3. (a) What is Chronic Energy Deficiency (CED) ? Present the classification for chronic energy deficiency and/or underweight. What are its consequences of CED ? 3+2+5
- (b) Present a review on the effects and potential health benefits of dietary fibre. 10

4. (a) Enumerate the functions, digestion and absorption of proteins in our body. 5+5
- (b) Give the recommendations provided by ICMR for choosing the cooking medium for maintaining healthy heart. 5
- (c) What are the consequences of disturbances in fluid balance ? Explain giving examples. 5
5. (a) Enlist the dietary factors with anti-nutritional effects. Explain the effect of any factor. 8
- (b) Discuss the role of calcium, Vitamin D and phosphorus in bone formation. 8
- (c) Comment on the bioavailability of Vitamin A in our diet. 4
6. (a) How does maternal nutrition influence foetal outcome ? Explain giving the nutrient needs during pregnancy and how it supports growth of foetus/infants. 10
- (b) List the nutrient needs (Recommended Dietary Intakes) for a 2 to 6 year old pre-school child. What points would you keep in mind while developing good eating habits in children ? 5+5

7. (a) What are the nutrient needs for individuals living in high altitude ? 7
- (b) Comment on how the nutrient needs for space mission differ from normal recommendations. 7
- (c) What are ergogenic aids ? Discuss their relevance in training and competition for sportspersons. 6
8. Write short notes on any *four* of the following :
5+5+5+5
- (i) Breast-feeding and its relevance for child growth
- (ii) Common nutritional problems affecting adolescents in our country
- (iii) Good infant and young child feeding practices
- (iv) Limitations and advantages of using an exchange list in planning a menu
- (v) Gene Expression