

## FYUG PROGRAMME EXAMINATIONS, NOVEMBER 2024

(2024 Admission Regular)

## SEMESTER I – MDC (NUTRITION AND DIETETICS)

## CN1MDC01B24 - FOOD AND NUTRITION

Time: 45 mnts.

Maximum Marks: 35

Answer all the 35 questions. Choose the correct option

Q.No:	QUESTIONS	Ans.	CO	LEVEL
1.	Identify the chronic conditions that a balanced diet can help prevent, according to My plate. a. Diabetes mellitus and cardiovascular diseases b. Allergies and infections c. Asthma and bronchitis d. Osteoporosis and arthritis		1	U
2.	Select the correct intake of milk and milk products recommended for a 2000 Kcal diet. a. 200-250 ml/day    b. 250-300 ml/day c. 300-350 ml/day    d. 350-400 ml/day		1	R
3.	Identify the vitamin that primarily aid in regulating metabolism. a. Vitamin A    b. Vitamin B complex c. Vitamin C    d. Vitamin D		1	U
4.	State the main reason for variability in nutrient requirements among adults. a. Body size and weight    b. Personal preferences c. Dietary habits    d. Physical activity		1	R
5.	Identify the primary occupation activity level of the reference man during his working hours. a. Light activity    b. Moderate activity c. High activity    d. Heavy intensity		1	R
6.	Identify the primary application of EAR in scientific research. a. To promote individual dietary preferences b. To assess the nutritional status of populations c. To determine food prices d. To track individual health progress		1	R
7.	Identify the term for enlargement of the thyroid gland. a. Goitre    b. Oedema c. Anaemia    d. Toxaemia		1	R
8.	Select the fat that can increase the risk of cardiovascular diseases. a. Visible fat    b. Saturated fat c. Unsaturated fat    d. None of the above		1	U
9.	Identify the nutrients that can be lacked in vegan diets. a. Vitamin B12    b. Iron c. Zinc    d. All of the above		1, 2	R

Q.No:	QUESTIONS	Ans.	CO	LEVEL
10.	Select the nutrient which in too much cause strain to the kidney. a. Protein    b. Carbohydrate c. Fat        d. Minerals		1	U
11.	Identify the food that contain probiotics. a. Yogurt                      b. Fermented foods c. Both of the above    d. None of the above		1	U
12.	Select the vitamin deficiency which causes rickets. a. Vitamin A    b. Vitamin B    c. Vitamin D    d. Vitamin K		1	R
13.	State the protein-sparing action of carbohydrates. a. They promote protein breakdown for energy. b. They prevent the breakdown of protein for energy. c. They have no effect on protein. d. They convert protein into fat.		1, 2	R
14.	Identify the effect of simple carbohydrates when ingested. a. They lower blood glucose levels. b. They are slowly digested and absorbed. c. They raise blood glucose levels rapidly. d. They have no effect on blood glucose levels.		1, 2	U
15.	Identify the animal food that is not a source of protein. a. Meat    b. Egg    c. Fish    d. Butter		1, 2	U
16.	Select the type of proteins that act as catalysts in biochemical reactions. a. Hormones    b. Enzymes    c. Transport proteins    d. Antibodies		1, 2	R
17.	Select the role of fats in body temperature regulation. a. Fats cool the body. b. Fats provide insulation and keep the body warm. c. Fats have no role in temperature regulation. d. Fats lower body temperature.		1, 2	U
18.	Select the oil which is a source of polyunsaturated fatty acids. a. Olive oil    b. Corn oil    c. Coconut oil    d. Palm oil		1, 2	U
19.	Identify the odd one. a. Vitamin C    b. Vitamin D    c. Vitamin E    d. Vitamin K		2	U
20.	Select the most important provitamin. a. Retinol    b. Retinal    c. Retinoic acid    d. Beta carotene		2	R
21.	Identify the sunshine vitamin. a. Vitamin C    b. Vitamin D    c. Vitamin E    d. Vitamin K		2	R
22.	Select the anti-beri beri factor. a. Vitamin B1    b. Vitamin B2    c. Vitamin B3    d. Vitamin B4		2	U
23.	Identify the correct expansion for the coenzyme TPP a. Thiamine pyrophosphate b. Thiamine pent phosphate c. Thiamine phosphate d. Thiamine prophosphate		2	U
24.	Select the clotting vitamin. a. Vitamin C    b. Vitamin D    c. Vitamin E    d. Vitamin K		2	R
25.	Identify the vitamin also known as niacin. a. Vitamin B1    b. Vitamin B2    c. Vitamin B3    d. Vitamin B7		2	R

Q.No:	QUESTIONS	Ans.	CO	LEVEL
26.	Select the vitamin essential for the production of sex hormones. a. Vitamin B1    b. Vitamin B3    c. Vitamin B6    d. Vitamin B9		2	U
27.	Identify the deficiency of which vitamin leads to Megaloblastic or pernicious anaemia. a. Vitamin B3    b. Vitamin B6    c. Vitamin B9    d. Vitamin B12		2	U
28.	Select the richest plant-based source of Vitamin B12. a. Broccoli    b. Peach    c. Avocados    d. None of the above		2	U
29.	Identify the conditions which can result from vitamin C deficiency. a. Poor wound healing b. Poor Bone & Dentin formation c. Compromised immunity d. All of the above		2	U
30.	Select the plant-based sources of phosphorus. a. Mushrooms, wheat germ and green leafy vegetables b. Yams, tofu and chia seeds c. Nuts, legumes and whole grains d. Bananas, oranges and avocados		1, 2	U
31.	State the characteristic of non-heme iron. a. It is found only in animal sources. b. It is absorbed more readily than heme iron. c. It is less readily absorbed compared to heme iron. d. It does not require vitamin C for absorption.		1, 2	R
32.	State why iodine requirements increase during pregnancy. a. Due to increased blood volume b. Due to increased production of thyroid hormones c. Due to higher energy expenditure d. Due to increased muscle mass		1, 2	R
33.	Select the richest plant-based source of zinc. a. Broccoli    b. Peach    c. Avocados    d. Nuts		1, 2	R
34.	Identify the type of enzymes for which selenium acts as a cofactor. a. Digestive enzymes    b. Antioxidant enzymes c. Hormonal enzymes    d. Metabolic enzymes		1, 2	U
35.	Identify the minerals that help in maintaining fluid balance between ICF and ECF. a. Calcium and Phosphorus    b. Sodium and Potassium c. Calcium and Sodium    d. Sodium and Phosphorus		1, 2	U

(35x1=35)

CO: Course Outcomes Level: R – Remember, U – Understand, Ap- Apply, An- Analyze, E- Evaluate, C- Create

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## CN1MDC01B24 - FOOD AND NUTRITION

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Answer all the 35 questions. Choose the correct option.

Q.No:	QUESTIONS	Ans	CO	LEVEL
1.	Indicate the percentage of total calories that should ideally come from nuts, vegetables, fruits, and milk in a balanced diet. a. 25%   b. 40%   c. 50%   d. 30%		1	U
2.	Identify the recommended daily intake of vegetables, including green leafy vegetables and tubers (excluding potato), as per the ICMR-NIN 'My Plate' guidelines. a. 300g   b. 350g   c. 400g   d. 450g		1	U
3.	Select the percentage of body weight that water constitutes in a healthy human body. a. 45%   b. 55%   c. 65%   d. 75%		1	R
4.	Identify the type of interrelationship between Tryptophan and Niacin. a. Competitive interrelationship   b. Chemical combination or reaction c. Precursor interrelationship   d. Exchange interrelationship		1	U
5.	Select the weight of the reference man. a. 70 kg   b. 60 kg   c. 65 kg   d. 75 kg		1	R
6.	State the relationship between EAR and RDAs. a. EAR is unrelated to RDAs. b. EAR is used as a basis for setting RDAs. c. RDAs are always higher than EAR. d. RDAs are determined independently of EAR.		1	R
7.	Select micronutrients from the options given e. Carbohydrate   b. Fat   c. Both a & b   d. Neither a nor b		1	R
8.	Identify the nutrients which facilitate energy production and metabolism. a. Vitamins   b. Minerals   c. Both a & b   d. Neither a nor b		1	U
9.	State the condition where there is an imbalance between the nutrients an individual consumes and the nutrients that body needs. a. under nutrition   b. over nutrition   c. malnutrition   d. nutrition		1	R
10.	State the deficiency of both protein and calories.		1	U

Q.No:	QUESTIONS	Ans	CO	LEVEL
	a. Kwashiorkor b. Marasmus c. Both a & b c. Neither a nor b			
11.	Identify the vitamin deficiency which leads to weakened bones. a. Vitamin B12 b. Vitamin C c. Vitamin D d. Vitamin K		1,2	U
12.	Select the nutrients especially important during periods of rapid growth. a. Protein b. Calcium c. Iron d. All of the above		1	U
13.	Select the stored form of energy for carbohydrates found in the liver and muscles. a. Starch b. Glycogen c. Glucose d. Cellulose		1,2	U
14.	Identify the type of complex carbohydrate that is present in fruits, vegetables, whole grains, nuts, and legumes. a. Starch b. Glycogen c. Fiber d. Sucrose		1,2	R
15.	Select the sources of complete proteins. a. Fruits and vegetables b. Whole grains, pulses and legumes c. Dairy, eggs, meat, poultry, and fish d. Sugary snacks and processed foods		1,2	R
16.	Select the plant-based food that is high in omega-6 fatty acids. a. Walnuts b. Chia seeds c. Flaxseeds d. Pumpkin seeds		1,2	U
17.	Identify the source of monounsaturated fatty acids. a. Coconut oil b. Olive oil c. Sunflower oil d. Flaxseed oil		1,2	U
18.	Identify a plant source of saturated fat. a. Palm oil b. Soybean oil c. Canola oil d. Sunflower oil		1,2	R
19.	Select the energy releasing B complex vitamins. a. Vitamin B1 b. Vitamin B2 c. Vitamin B3 d. All of the above		2	U
20.	Identify the vitamin which is also known as toopherol. a. Vitamin A b. Vitamin C c. Vitamin D d. Vitamin E		2	U
21.	Select the daily requirement dose of Vitamin K for children. a. 70 – 140 mcg. b. 35 – 75 mcg c. 15-35 mcg d. less than 10 mcg		2	U
22.	Identify the vitamin which is also known as pyridoxine. a. Vitamin B6 b. Vitamin B7 c. Vitamin B9 d. Vitamin B12		2	U
23.	Select the antineurotic factor. a. Vitamin B1 b. Vitamin B2 c. Vitamin B3 d. Vitamin B5		2	U
24.	Identify of which vitamin causes beriberi. a. Vitamin B6 b. Vitamin B7 c. Vitamin B9 d. Vitamin B12		2	U
25.	Select the enzyme which is a precursor of the coenzyme NAD. a. Vitamin B1 b. Vitamin B2 c. Vitamin B3 d. Vitamin B5		2	U
26.	Identify the vitamin discovered by roger Williams in 1919. a. Vitamin B1 b. Vitamin B2 c. Vitamin B3 d. Vitamin B5		2	U

Q.No:	QUESTIONS	Ans	CO	LEVEL
27.	Select the fats that require the CoA form of pantothenic acid for their synthesis. a. Fatty acids    b. Cholesterol    c. Both a & b    d. Neither a nor b		2	U
28.	Identify the active form of Vitamin B6. a. Pyridoxal 5'-phosphate b. Pyridoxal pyro phosphate c. Pyridoxal phosphate d. None of the above		2	U
29.	Select the vitamin also known as vitamin H. a. Vitamin B1    b. Vitamin B3    c. Vitamin B5    d. Vitamin B7		2	U
30.	Identify the minerals that play a significant role in muscle contraction and nerve impulse transmission. a. Sodium, Potassium, Copper    b. Copper, Phosphorus, Potassium c. Calcium, Phosphorus, Sodium    d. Calcium, Potassium, Sodium		1.2	U
31.	State the role of iron in muscle cells. a. It is involved in energy production. b. b. It is crucial for myoglobin synthesis. c. c. It helps in hemoglobin synthesis. d. d. It helps in red blood cells.		1.2	R
32.	Select the periods when the body has a higher requirement for zinc. a. Adolescence, adulthood and old age. b. b. Pregnancy, infancy, and childhood.. c. c. Only during exercise. d. d. In times of illness only.		1.2	R
33.	Select the richest animal-based source of selenium. a. Chicken    b. Organ meat    c. Milk    d. Egg		1.2	U
34.	Select the mineral that forms an integral component of ATP. a. Calcium    b. Phosphorus    c. Sodium    d. Potassium		1.2	U
35.	Identify the hormones produced with the help of iodine. a. Insulin and glucagon b. Estrogen and testosterone c. Thyroxine and triiodothyronine d. Adrenaline and cortisol		1.2	U

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Q.No:	QUESTIONS	Ans.	CO	LEVEL
1.	State the effect of following the My Plate model on insulin sensitivity. a. Prevents insulin resistance      b. Increases insulin resistance c. Has no effect on insulin sensitivity      d. Causes hyperglycemia		1	R
2.	Identify the recommended daily intake of vegetables, including green leafy vegetables and tubers (excluding potato), as per the ICMR-NIN 'My Plate' guidelines. a. 300g    b. 350g    c. 400g    d. 450g		1	U
3.	Select the nutrients that play a crucial role in building the body's resistance to disease. a. Carbohydrates, Proteins, Fat and Water b. Water, Vitamins, Fat, and Proteins c. Proteins, Minerals, Fat and Carbohydrate d. Minerals, Water, Fat and Carbohydrates		1	R
4.	Identify one of the primary uses of RDA for governments. a. To predict food needs of the population b. To monitor individual health c. To regulate food prices d. To promote fast food consumption		1	U
5.	Select the weight of the reference woman. a. 50 kg    b. 55 kg    c. 60 kg    d. 65 kg		1	R
6.	State one of the key outcomes of using EAR in national and international surveys. a. Identifying trends in food prices b. Recognizing potential nutritional deficiencies c. Assessing food production levels d. Evaluating marketing strategies		1	R
7.	Select the nutrient that supply energy. a. Carbohydrates    b. Vitamins    c. Minerals    d. Fiber		1	R
8.	Identify the nutrient that helps in preventing constipation. a. Proteins    b. Fat    c. Fiber    d. Minerals		1	U
9.	Identify the condition of swelling due to fluid retention. a. Goitre    b. Anaemia    c. Marasmus    d. Oedema		2	U
10.	Select the vitamin deficiency causing night blindness. a. Vitamin A    b. Vitamin B    c. Vitamin D    d. Vitamin K		1, 2	U

Q.No:	QUESTIONS	Ans.	CO	LEVEL
11.	Identify the vitamin primarily found in animal foods. a. Vitamin B3    b. Vitamin B6    c. Vitamin B9    d. Vitamin B12		2	U
12.	Select the nutrient present in fish and associated with improved mental well-being. a. Omega 3 fatty acids    b. Omega 6 fatty acids c. Both of the above    d. None of the above		1	U
13.	Identify the consequence of low carbohydrate intake on fat metabolism. a. Increased glycogen storage b. Excessive use of fat for energy, leading to ketone body production c. Reduced fat metabolism d. Enhanced muscle mass		1, 2	U
14.	Select the characteristics of complex carbohydrates. a. They digest quickly and provide immediate energy. b. They are primarily found in sugary snacks. c. They release glucose slowly into the bloodstream. d. They are solely found in fruits.		1, 2	U
15.	Identify the role of protein in the immune system. a. To digest food    b. To make antibodies c. To regulate body temperature    d. To produce energy		1, 2	U
16.	Identify the type of proteins that lack one or more essential amino acids. a. Complete proteins    b. Incomplete proteins c. Complementary proteins    d. Non-protein sources		1, 2	R
17.	Select the vitamins that require fats for transportation and absorption. a. A, B, C, D    b. A, D, E, K    c. B, C, D, E    d. A, B, C, E		1, 2	U
18.	Identify the food that is a good source of omega-6 fatty acids. a. Canola oil    b. Safflower oil    c. Salmon    d. Mackerel		1, 2	R
19.	Select the nutrient that cannot be synthesized in our body. a. Carbohydrates    b. Protein    c. Vitamins    d. None of the above		2	U
20.	Identify the vitamins that dissolve in fat. a. Vitamin A    b. Vitamin D    c. Both of the above    d. None of the above		2	U
21.	Select the vitamins that can be flushed out by the kidneys. a. Vitamin A    b. Vitamin C    c. Vitamin D    d. Vitamin E		2	U
22.	Identify the vitamins categorised under hematopoietic. a. Folic acid    b. Vitamin B12 c. Both of the above    d. None of the above		2	U
23.	Select the vitamin known as ascorbic acid. a. Vitamin A    b. Vitamin C    c. Vitamin D    d. Vitamin E		2	R
24.	Identify the daily requirement level of Vitamin A for adults. a. 600 mcg    b. 950 mcg    c. 350 mcg    d. None of the above		2	U
25.	Select the correct term for the production of blood cells and platelets. a. Hematopoiesis    b. Heamsynthesis c. Heamoglobin    d. Blood cell formation		2	U
26.	Identify the vitamin which is also known as cholecalciferol. a. Vitamin A    b. Vitamin C    c. Vitamin D    d. Vitamin E		2	U



Q.No:	QUESTIONS	Ans.	CO	LEVEL
27.	Select the daily requirement dose of Vitamin E for infants. a. 8-10mg   b. 5-8mg   c. 8.3mg   d. 4- 5mg		2	R
28.	Identify the vitamin essential for blood clotting. a. Vitamin B12   b. Vitamin C   c. Vitamin D   d. Vitamin K		2	U
29.	Select the vitamins essential for the metabolism of macronutrients. a. Fat soluble vitamins b. Water soluble vitamins c. Both of the above d. None of the above		2	U
30.	Select the minerals involved in DNA synthesis. a. Calcium, selenium and iodine. b. Potassium, iron, zinc. c. Sodium, iron, iodine. d. Phosphorus, selenium, zinc.		1, 2	U
31.	Select the seed that is rich in calcium. a. Sunflower seeds   b. Sesame seeds   c. Pumpkin seeds   d. Flaxseeds		1, 2	R
32.	Identify the primary role of iodine in the body. a. Energy production                      b. Protein synthesis c. Production of thyroid hormones   d. Blood clotting		1, 2	U
33.	Identify the forms in which most of the body iron exists. a. Free iron ions b. Bound to proteins as ferritin and transferrin c. In the form of hemoglobin only d. In the liver as glycogen		1, 2	U
34.	State the importance of zinc for sensory functions. a. It is essential for vision. b. It aids in taste and smell. c. It helps in hearing. d. It regulates body temperature.		1, 2	R
35.	Select the statement that accurately describes selenium's importance for thyroid function. a. Selenium has no connection to thyroid health. b. It is needed for thyroid hormone metabolism. c. It decreases the efficacy of thyroid hormones. d. It increases the thyroid hormone production.		1, 2	U

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