



**AMREF INTERNATIONAL UNIVERSITY  
SCHOOL OF MEDICAL SCIENCES  
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES  
END OF SEMESTER DECEMBER 2023 EXAMINATIONS**

**COURSE CODE AND TITLE: DOP 121 APPLIED NUTRITION IN ONCOLOGY**

**DATE: 11<sup>th</sup> DECEMBER 2023**

Duration: 2 HOURS

Start: 9:00 AM

Finish: 11:00 AM

**INSTRUCTIONS**

1. This exam is out of 70 marks
2. This Examination comprises THREE Sections. Section I: Multiple Choice Questions (20 marks) Section II: Short Answer Questions (30 marks) and Section III: Long Answer Questions (20 marks)
3. Answer ALL Questions.
4. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

**SECTION I: MULTIPLE CHOICE QUESTIONS****(20 MARKS)**

1. The following is an important function of water in the body: -
  - A. Lessen fatigue
  - B. Relieve pain
  - C. Act as a part of the body's cooling system
  - D. Improve motor and sensory nerve function
2. Diets high in fibre have been proposed to protect against colorectal cancer by one of the following mechanisms: -
  - A. Antioxidant effect, which quenches free radicals
  - B. Increased repair of damaged DNA
  - C. Increased induction of detoxifying enzymes
  - D. More rapid removal of potential carcinogens
3. Dietary sources of antioxidants include
  - A. Vitamins A, E, and C
  - B. Vitamins B6, Iron and Calcium
  - C. Vitamins D, A and B
  - D. carotenoids, Vitamin C and iron
4. Essential amino-acids are: -
  - A. vitamins that dissolve in fat.
  - B. the nine amino acids the body cannot produce
  - C. from grains legumes, and seeds
  - D. the most abundant
5. Adequate consumption of \_\_\_\_\_ before and during the early stages of pregnancy significantly reduces the incidence of neural tube defects.
  - A. folic acid
  - B. thiamin
  - C. Vitamin A
  - D. Vitamin C
6. A woman is 1.60 m tall and weighs 72 kg. Is she:
  - A. Underweight
  - B. Normal weight
  - C. Overweight
  - D. Obese

7. An example of fat soluble vitamin is: -
- A. Cobalamine
  - B. Phylloquinone
  - C. Thiamine
  - D. Biotin
8. The following are strategies used to combat micronutrient and macronutrients deficiencies:
- A. Food fortification
  - B. Food processing
  - C. Food eradication
  - D. Diet management
9. The term for substances that are both required by the body and that must be obtained from diet is: -
- A. Food
  - B. Nutrients
  - C. Essential foods
  - D. Essential dietary needs
10. A group of lactic acid-producing bacteria that appear to provide a range of positive digestive benefits are known as: -
- A. probiotics
  - B. nutribiotics
  - C. gastro biotics
  - D. bioproductives
11. Individual's blood cholesterol and the rate of death from heart disease is low in populations whose dietary fat consists mostly of \_\_\_\_\_ fats, and a diet that includes fish, fruits, and vegetables.
- A. unsaturated
  - B. saturated
  - C. trans
  - D. omega-6
12. The most common type of fat in food and in body fat stores: -
- A. Glycerol
  - B. Triglycerides
  - C. Monoglycerides
  - D. Diglycerides

13. The following statements about fatty foods is true: -
- A. Fatty foods are low in energy density.
  - B. Fat in foods contributes to satiety.
  - C. Fat gives foods a tough texture.
  - D. Fat impairs the absorption of some phytochemicals.
14. The nutrition recommendation for a patient undergoing cancer treatment is: -
- A. Avoid Micronutrients
  - B. Maintain a Healthy Weight
  - C. Lower Your Intake of Macronutrients
  - D. Avoid Dietary Fats
15. The functions of vitamin C include: -
- A. Helps the formation of various body tissues, particularly connective tissues, bones, cartilage and teeth.
  - B. Helps in absorption of vitamin D.
  - C. Affects a number of important metabolic activities needed for the maintenance of healthy skin
  - D. Help in proper functioning of the nervous and digestive system.
16. Determinants of nutrient needs include: -
- A. Basal metabolic rate (BMR);
  - B. Stage of development;
  - C. Specific dynamic action of food.
  - D. All the above
17. Malnutrition is defined as: -
- A. Physiological state of nutrition imbalance that results from deficiencies, excesses in the consumption or faulty utilization of macro and or micronutrients.
  - B. The outcome of insufficient food intake and repeated infectious diseases.
  - C. The physiological status of an individual that results from the interaction between nutrient intake and the body's ability to utilize the nutrients.
  - D. None of the above.
18. Macronutrients are nutrients that the body requires in large amounts. They include
- A. Fibre.
  - B. Water
  - C. Minerals
  - D. Vitamins

19. Aflatoxins are potent carcinogens in:

- A. The brain
- B. The liver
- C. The lungs
- D. Heart

20. The following statements is TRUE regarding probiotics: -

- A. Probiotics are organisms that contribute toward intestinal microbial balance
- B. Probiotics are non-digestible food products that selectively stimulates the growth of one or a limited number of bacteria in the colon to confer health benefit for the host
- C. There is good evidence to suggest that probiotics have a beneficial role in preventing post-operative recurrence of Crohn's Disease
- D. probiotic consists of strains of lactobacillus, bifidobacterium and Saccharomyces boulardi

**SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)**

- 1. Outline four (4) functions of food in the body. (4 Marks)
- 2. State six (6) factors that influence food security at National level. (6 Marks)
- 3. Describe three (3) blocks of anthropometry (6 Marks)
- 4. Explain three (3) tools of nutrition assessment among cancer patients (6 Marks)
- 5. Explain four (4) goals of nutrition therapy for cancer patients (8 Marks)

**SECTION III: LONG ANSWER QUESTION – (20 MARKS)**

1. The amount of food an individual requires is determined by the body's nutritional needs.
- a. Explain five (5) factors that determine an individuals' nutritional needs. (10 Marks)
  - b. Explain Strategies used in Combating macronutrients and Micronutrient Deficiencies . (10 Marks)