



(University of Choice)

**MASINDEMULIROUNIVERSITY OF
SCIENCE AND TECHNOLOGY**

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST TRIMESTER EXAMINATION

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN NURSING (UPGRADING)

COURSE CODE: NCD 215

COURSE TITLE: CLINICAL NUTRITION

DATE: 04/10/2022 DAY: WED TIME: 11.30 – 2.30PM

INSTRUCTIONS TO CANDIDATES

THIS PAPER CONSIST OF THREE SECTIONS A, B AND C

ANSWER ALL QUESTIONS

TIME: 3 HOURS

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 6 Printed Pages. Please Turn Over 

Section A. MCQs (20 marks)

1. Which of the following are water soluble vitamins?
 - a) ADE&K
 - b) B₁ CK
 - c) AB₁₂ C
 - d) B₆ C

2. A substance needed by the body for growth, energy, repair and maintenance is called a
 - a) fatty acid
 - b) nutrient
 - c) carbohydrate
 - d) calorie

3. Some of the direct sources of vitamins A are
 - a) Fish-liver oil Milk, butter, cheese, liver egg-yolk
 - b) Spinach, turnip tops, butter, cheese
 - c) Spinach, beet greens, coriander leaves, curry leaves
 - d) Sun rays, sweet potatoes, pumpkin Yellow fruit

4. Increased haemolysis of the red blood cells is seen in
 - a) Vitamin K deficiency
 - b) Vitamin K overdose
 - c) Vitamin E deficiency
 - d) Vitamin E overdose

5. Cheilosis is a sign of a deficiency disease characterized by
 - a) Inflamed tongue
 - b) Cracked red lips
 - c) Articurrier
 - d) Chainlike burrows on the skin

6. The following are nutritional and metabolic disorders except
 - a) Hypertension
 - b) Diabetes
 - c) Bulimia
 - d) Obesity

7. Malabsorption syndrome, chronic alcoholism, toxemia of pregnancy or intake of diuretics may cause deficiency in
 - a) Potassium
 - b) Zink
 - c) sodium
 - d) Magnesium

8. Obesity increase the risk of developing the following conditions except
 - a) Diabetes Mellitus
 - b) Cancer
 - c) Cardiovascular disease
 - d) Huntington disease

9. Recommended Allowance of Free Folic Acid in pregnancy is
 - a) 400
 - b) 100
 - c) 150
 - d) 30 to 100

10. One of the following is not among the three main categories of food
 - a) Biological function of food
 - b) Physiological functions of food
 - c) Psychological functions of food
 - d) Social function of food.

11. What is the energy need of a sedentary 43-year old woman who weighs 63 kg?
 - a) 1250 kcal/day
 - b) 1350 kcal/day
 - c) 1525 kcal/day
 - d) 1800 kcal/day

12. Phentermine is a drug used in weight management by:
 - a) Suppressing appetite by increasing neurotransmitter levels in the brain
 - b) Inhibiting lipase blocking digestion of fat
 - c) Extended-release on food in the stomach
 - d) Inhibiting reuptake of dopamine and norepinephrine

13. Identify the chemical formula of Vitamin C
- $C_6H_8O_6$
 - $C_{20}H_{30}O$
 - $C_6H_{12}O_6$
 - $R-CH(NH_2)-COOH$
14. Identify the chemical formula of the smallest unit of protein
- $C_6H_8O_6$
 - $C_{20}H_{30}O$
 - $C_6H_{12}O_6$
 - $R-CH(NH_2)-COOH$
15. Fats and oils, hydrogenated fats and pure ghee are very concentrated sources of energy. Their energy provision is
- 100 Kcal./g.
 - 0.001 Kcal./g.
 - 9 Kcal./g.
 - 0.9 Kcal./g.
16. A plate of a balanced diet contains
- $\frac{1}{2}$ proteins, a glass of carbohydrates and $\frac{1}{2}$ fruits and vegetable
 - $\frac{1}{4}$ proteins, $\frac{1}{2}$ carbohydrates and $\frac{1}{2}$ fruits and $\frac{1}{2}$ vegetable
 - $\frac{1}{2}$ proteins, $\frac{1}{4}$ carbohydrates, $\frac{1}{4}$ fruits and $\frac{1}{4}$ vegetable
 - $\frac{1}{4}$ proteins, $\frac{1}{4}$ carbohydrates and $\frac{1}{2}$ fruits and vegetable
17. Based on the amount of the nutrients that each person needs to consume on a daily basis, nutrients are categorized in groups of
- Energy giving, body building, protective
 - Protein, carbohydrates, vitamins/minerals, water, fats and oils, fibre
 - Macronutrients and micronutrients
 - Monosaccharides, disaccharides, polysaccharides
18. One of the following factors is not a consideration in meal planning
- Digestibility and palatability
 - Palatability and economy
 - Economy and family customs
 - Discourage traditions and customs

19. Which of the mechanisms below does not explain why high protein diets are optimal for weight loss and weight maintenance?
- Synergistic effect of GLP-1 and PYY on the appetite centres in the brain
 - Preservation of lean body mass
 - A higher thermic effect of protein than carbohydrates and fats
 - Builds muscle and not fat tissue
20. In meal planning ideal breakfast should provide a fraction of the day's requirements i.e
- 1/3rd to 1/4th
 - 1/2 to 1/3rd
 - 1/8th to 2/8th
 - 1/4th to 1/5th

Section B. SAQs (40 marks)

- Define obesity (1 mark)
- With examples, discuss the types of drugs used in management of obesity (8marks)
- Identify the **chemical formula** and draw a **chemical structure** of Histidine (6 marks)
- Explain nutritional anaemia (7 marks)
- State any **eight (8)** healthy sources of fat (8 marks)
- List **eight (8)** essential trace elements (4 marks)
- State any **six (6)** eating disorders (6 marks)

Section C. LAQs (40 marks)

- Discuss the **two** alternative ways of feeding (20 marks)
- Discuss the factors influencing energy requirements (20 marks)

