



**AMREF INTERNATIONAL UNIVERSITY**  
**SCHOOL OF MEDICAL SCIENCES**  
**DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES**  
**Kenya Registered Community Health Nursing**  
**End Semester April 2025 Examinations**

**COURSE CODE AND TITLE: DNS 122: Medical Surgical Nursing I**

**DATE:16-4-2025**

**TIME: 2 HOURS**

**Start: 2:00PM**

**Finish: 4:00PM**

**INSTRUCTIONS**

- 1. This exam will be marked out of 70 Marks**
- 2. ALL Questions are compulsory.**
- 3. The Examination has Three Sections: Section I- Multiple Choice Questions, Section II: Short Answer Questions, Section III: Long Essay Questions**
- 4. Answer all Questions in the ANSWER BOOKLET provided**
- 5. Do not write anything on the question paper**
- 6. Use the back of your booklet for rough work if need be.**

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

1. The primary function of dietary fibre is to:
  - a. Increase the absorption of vitamins
  - b. Provide a source of quick energy
  - c. Promote bowel motility
  - d. Support muscle growth
  
2. Glycaemic Index (GI) measures the :-
  - a. Amount of fiber in a food item
  - b. Effect of a carbohydrate-containing food on blood sugar levels
  - c. Calorie content of a food item
  - d. Protein content of a food item
  
3. The following action does not lower the Glycemic Index of a food :-
  - a. Cooking the food for a longer period of time
  - b. Eating the food with fat or protein
  - c. Eating the food in its whole, unprocessed form
  - d. Combining the food with fiber-rich food
  
4. The vitamin critical in normal production of red blood cells is:-
  - a. Vitamin A
  - b. Vitamin C
  - c. Vitamin B12
  - d. Vitamin K
  
5. The statement that best describes Essential and non-essential amino acids is :-
  - a. All amino acids are essential for protein synthesis
  - b. Non-essential amino acids must be obtained through food sources
  - c. Essential amino acids cannot be synthesized by the body
  - d. Non-essential amino acids are only found in animal-based foods
  
6. The following findings is most characteristic of disseminated intravascular coagulation (DIC):-
  - a. Increased fibrinogen levels
  - b. Decreased D-dimer levels
  - c. Thrombocytosis
  - d. Prolonged prothrombin time (PT) and activated partial thromboplastin time (aPTT)

7. Microcytic hypochromic anemia is characteristic of:-
  - a. Vitamin B12 deficiency
  - b. Iron deficiency anemia
  - c. Hemolytic anemia
  - d. Aplastic anemia
  
8. The following is not a blood cell originating from Myeloid stem cells:-
  - a. WBC
  - b. Platelets
  - c. Lymphocytes
  - d. RBC
  
9. The function of factor XIII in the coagulation cascade is to:-
  - a. Activate prothrombin
  - b. Stabilize the fibrin clot
  - c. Convert fibrinogen to fibrin
  - d. Inhibit thrombin
  
10. The marker is used to assess iron stores in the body:-
  - a. Serum iron
  - b. Transferrin
  - c. Ferritin
  - d. Reticulocyte count
  
11. An increased Erythrocyte Sedimentation Rate ( ESR) is a good indicator of: -
  - a. Infection or inflammation
  - b. Clotting disorder
  - c. Hemophilia
  - d. Polycythemia
  
12. The organ primarily responsible for the destruction of aged red blood cells is:-
  - a. Liver
  - b. Spleen
  - c. Bone marrow
  - d. Kidney
  
13. Septic shock is classified as:-
  - a. Distributive shock
  - b. Obstructive shock
  - c. Cardiogenic shock
  - d. Hypovolemic shock

14. The following behavior is a precipitating factor for upper respiratory tract infection:-
- Annual influenza vaccination
  - Smoking 2 packs of cigarettes daily
  - Avoids being in large crowds when possible
  - Consumes 3 liters of water daily
15. The hallmark of Chronic obstructive pulmonary disease (COPD) disease is :-
- Atelectasis and chronic bronchitis
  - Chronic bronchiolitis and atelectasis
  - Chronic bronchitis and emphysema
  - Chronic bronchiolitis and bronchitis
16. A classical clinical manifestation of pulmonary embolism is :-
- Dyspnea
  - Bradypnea
  - Bradycardia
  - Decreased respirations
17. Chronic obstructive pulmonary disease coexists with :-
- Pneumonia
  - Bronchitis
  - Asthma
  - Atelectasis
18. Bronchiectasis involves: -
- Chronic airway inflammation
  - Reduced number and function of cilia
  - Permanent destruction of the alveoli walls
  - Permanent dilation of the bronchi
19. The best nursing response to a patient on tuberculosis treatment regimen who complains of orange-colored urine is: -
- "This is a sign of liver damage. Please stop the medication immediately."
  - "Orange-colored urine is a common side effect of rifampin."
  - "This is due to dehydration; drink more fluids."
  - "It indicates the need for a dosage adjustment."

20. Gigantism refers to abnormally high linear growth due to: -
- Excessive action of Insulin-like inhibiting growth factor I (IGF-I) that occurs after fusion of the growth plate cartilage
  - Reduced action of Insulin-like growth factor I (IGF-I) while the epiphyseal growth plates are open
  - Reduced action of Insulin-like inhibiting growth factor I (IGF-I) that occurs after fusion of the growth plate cartilage
  - Excessive action of Insulin-like growth factor I (IGF-I) while the epiphyseal growth plates are open

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

- Describe the pathophysiology of Sickle cell anemia (5 Marks)
- Outline five differences between communicable and non-communicable diseases. (5 Marks)
- Describe the pathophysiology of pneumonia (5 Marks)
- State three (3) methods used in assessment of nutritional status. (6 Marks)
- State two (2) signs that are associated with protein energy malnutrition (4 Marks)
- Outline the two (2) types of diabetes insipidus (2 Marks)
- Outline the three (3) Types of hypothyroidism (3 Marks)

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

- Mr. K was admitted in the medical ward with a diagnosis of pulmonary tuberculosis:
  - Define tuberculosis: - (1 Mark)
  - Describe the pathophysiology of pulmonary tuberculosis: - (5 Marks)
  - List two (2) complications of tuberculosis: - (1 Mark)
  - Describe the health messages to give during discharge: - (13 Marks)