



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING & MIDWIFERY SCIENCES
END OF SEMESTER EXAMINATION MAY-AUGUST 2026 EXAMINATION**

COURSE CODE AND TITLE: BSN 224 Medical-Surgical Nursing I

DATE: 4TH AUGUST 2026

Duration:

Start: 9AM

Finish: 11AM

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 A: MULTIPLE CHOICE QUESTIONS (20 Marks)

1. A patient in hypovolemic shock is receiving aggressive IV fluid resuscitation. Which finding best indicates that resuscitation is effective?
 - A. Urine output of 15 mL/hr
 - B. Heart rate rising from 90 to 110 bpm
 - C. Urine output increasing to 40 mL/hr
 - D. A fall in mean arterial pressure
2. The electrolyte and acid-base disturbance is most commonly associated with prolonged vomiting?
 - A. Hyperkalaemia and metabolic acidosis
 - B. Hypokalaemia and metabolic alkalosis
 - C. Hyperkalaemia and metabolic alkalosis
 - D. Hypokalaemia and metabolic acidosis
3. A nurse formulates the statement "Acute pain related to surgical incision as evidenced by patient's verbal report and guarding behaviour." This statement is generated during which step of the nursing process?
 - A. Assessment
 - B. Nursing diagnosis
 - C. Planning
 - D. Implementation
4. A nursing action should be prioritised first for a patient presenting with epistaxis?
 - A. Apply an ice pack to the forehead
 - B. Sit the patient upright, lean forward, and pinch the soft part of the nose
 - C. Tilt the patient's head backward
 - D. Insert anterior nasal packing immediately
5. A statement best differentiates emphysema from chronic bronchitis;
 - A. Emphysema presents with a productive cough while bronchitis presents with dyspnoea only
 - B. Emphysema involves destruction of alveolar walls with loss of elastic recoil, while chronic bronchitis involves mucus hypersecretion with airway inflammation
 - C. Chronic bronchitis is diagnosed by decreased diffusion capacity on pulmonary function testing
 - D. Emphysema is classically described as the "blue bloater" presentation

6. A client with a pneumothorax has a chest tube connected to a water-seal drainage system. Continuous bubbling in the water-seal chamber most likely indicates:

- A. Normal fluctuation (tidalling) with respiration
- B. An air leak in the drainage system or at the insertion site
- C. Resolution of the pneumothorax
- D. Proper functioning of the suction control chamber

7. The following statements about rheumatic heart disease (RHD) is correct;

- A. It develops as a delayed complication of group A streptococcal (rheumatic) fever and most commonly damages the mitral valve
 - B. It occurs only in older adults as a result of coronary atherosclerosis
 - C. It is caused by direct bacterial invasion of the valve, unrelated to any prior infection
 - D. It primarily affects the pulmonary valve and rarely involves the mitral valve
8. The most reliable early clinical sign of left-sided heart failure is:

- A. Peripheral (dependent) oedema
- B. Jugular venous distension
- C. Dyspnoea on exertion with bibasal crackles on auscultation
- D. Hepatomegaly and ascites

9. The following is a classic symptom of angina pectoris;

- A. Chest pain that is relieved by rest or nitroglycerin
- B. Chest pain that worsens with deep breathing
- C. Chest pain accompanied by high fever
- D. Chest pain that occurs only during sleep

10. A patient with mitral stenosis is at greatest risk of developing which complication?

- A. Left ventricular hypertrophy
- B. Atrial fibrillation with systemic thromboembolism
- C. Aortic regurgitation
- D. Isolated right ventricular hypertrophy without pulmonary involvement

11. In caring for a patient with infective endocarditis, the priority nursing consideration is to:

- A. Encourage vigorous physical activity to maintain cardiac output
- B. Monitor for signs of embolisation and ensure administration of the full prescribed course of IV antibiotics
- C. Withhold antibiotics until blood culture results are finalised
- D. Restrict oral and IV fluids strictly

12. A patient presents with acute chest pain suspected to be anginal in origin. The priority nursing action is to:

- A. Administer nitroglycerin, obtain a 12-lead ECG, and assess vital signs promptly
- B. Ambulate the patient to assess exercise tolerance
- C. Delay any intervention until cardiac enzyme results are available
- D. Apply a warm compress to the chest wall

13. A patient with pernicious anaemia has a deficiency of which factor required for vitamin B12 absorption?

- A. Extrinsic factor
- B. Intrinsic factor
- C. Erythropoietin
- D. Thrombopoietin

14. The laboratory pattern is characteristic of disseminated intravascular coagulation (DIC)?

- A. Elevated platelets with decreased fibrin degradation products
- B. Prolonged PT/PTT, decreased fibrinogen, and elevated D-dimer
- C. Normal PT/PTT with elevated platelet count
- D. Decreased D-dimer with normal fibrinogen

15. A patient with haemophilia is scheduled for a dental extraction. Which pre-procedure nursing action is most important?

- A. Withhold all analgesia before the procedure
- B. Ensure factor replacement therapy is administered as prescribed before the procedure
- C. Encourage the use of aspirin for pain control
- D. No special preparation is required before a minor dental procedure

16. Clinical feature most specific to chronic myeloid leukaemia (CML): -

- A. Massive splenomegaly in association with the Philadelphia chromosome
- B. Bone pain with Reed-Sternberg cells on biopsy
- C. Isolated petechiae without organomegaly
- D. Absence of leukocytosis on full blood count

17. In caring for a patient following splenectomy, the nurse should prioritise monitoring for:

- A. Hypoglycaemia
- B. Increased susceptibility to infection, particularly with encapsulated organisms
- C. A decreased risk of thromboembolism
- D. Reduced need for prophylactic vaccination

18. Lymphoedema differs from venous oedema primarily in that lymphoedema:
- A. Pits easily and resolves promptly with limb elevation
 - B. Results from impaired lymphatic drainage and often becomes non-pitting in later stages
 - C. Is almost always bilateral in presentation
 - D. Resolves rapidly with diuretic therapy
19. The priority nursing intervention for a patient with lymphangitis is to:
- A. Apply cold compresses only, without further intervention
 - B. Elevate the affected limb and ensure administration of prescribed antibiotics
 - C. Vigorously massage the affected area to promote drainage
 - D. Apply a tight compression bandage to reduce swelling
20. Long-term nursing management for a patient with elephantiasis due to filarial infection should focus on:
- A. Amputation as the first-line management option
 - B. Meticulous skin/limb hygiene, limb elevation, compression therapy, and prevention of secondary infection
 - C. Strict bed rest with no positional changes
 - D. Avoidance of all skin hygiene measures to prevent irritation

SECTION B: SHORT ANSWER QUESTIONS (30 Marks)

1. Discuss the nursing management of a patient experiencing acute post-operative pain. (5 marks)
2. Explain the pathophysiology of chronic obstructive pulmonary disease (COPD) (2 marks) and describe three (3) clinical manifestations (5 marks)
3. Discuss the causes, clinical manifestations, and nursing management of a patient with hyperkalaemia. (5 marks).
4. Differentiate between sickle cell anaemia and iron deficiency anaemia in terms of aetiology and clinical presentation. (5 marks)
5. Describe the nursing care of a patient receiving a blood transfusion, including how a transfusion reaction is recognised and immediately managed. (5 marks)
6. Discuss the nursing management of a patient with lymphoedema of the lower limb. (5 marks)

SECTION C: LONG ANSWER QUESTIONS (20 Marks)-Instruction: Answer BOTH questions.

1. Mrs. J.K., a 55-year-old woman, is admitted to the medical ward with a confirmed diagnosis of acute myocardial infarction. Using the nursing process, discuss:

- (a) Describe focused assessment findings you would expect from Mrs. JK(7 marks)
- (b) With the aid of a concept Map, explain 5 nursing diagnoses for Mrs. J.k(13 Marks)