



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2026

UNIT CODE: PHT 226

UNIT NAME: GENERAL SURGERY

DATE: 14th APRIL 2026

TIME: 2 HOURS START:11.15AM-STOP:1.15PM

INSTRUCTIONS

- 1. All students will have two (2) hours to complete the examination**
- 2. This physical exam has 3 Sections. Attempt all questions in each Section**
- 3. It is the student's responsibility to report any page and number missing in this paper.**
- 4. Check that the paper is complete**
- 5. Total number of pages is 6 including the cover.**
- 6. Read through the paper quickly before you start.**

SECTION A: MULTIPLE CHOICE QUESTIONS (30 MARKS)

1. The most common cause of fluid volume deficit in post-operative patients is:-
 - a. Excessive IV fluids
 - b. Blood transfusion
 - c. Renal failure
 - d. Gastrointestinal losses

2. An electrolyte imbalance which presents with muscle cramps, tetany, and a positive Trousseau's sign is:-
 - a. Hyponatremia
 - b. Hypocalcemia
 - c. Hyperkalemia
 - d. Hypermagnesemia

3. Metabolic acidosis commonly occurs in surgical patients due to:-
 - a. Shock and tissue hypoxia
 - b. Hyperventilation
 - c. Vomiting
 - b. Diuretic therapy

4. Malnutrition in surgical patients most directly affects physiotherapy by causing:-
 - a. Increased blood pressure
 - b. Reduced muscle strength and endurance
 - c. Improved flexibility
 - d. Increased reflex activity

5. Nutritional support improves physiotherapy outcomes in surgical patients primarily by:
 - a. Preventing post-surgical infections
 - b. Increasing range of motion post-surgery
 - c. Reducing post-surgical pain perceptions
 - d. Enhancing muscle strength and tissue repair

6. A surgical patient with severe burns has increased nutritional requirements mainly due to:-
 - a. Fluid overload
 - b. Hypermetabolic rate
 - c. Reduced appetite
 - d. Decreased absorption

7. A patient develops a tight scar limiting shoulder movement after mastectomy. The physiotherapy goal is to:-
 - a. Immobilize the shoulder
 - b. Prevent further movement
 - c. Improve tissue extensibility
 - d. Increase inflammation

8. Early mobilization after abdominal surgery helps wound healing by:-
 - a. Improving circulation and oxygen delivery
 - b. Increasing intra-abdominal pressure
 - c. Delaying collagen formation
 - d. Reducing surgical site pressure

9. Healing by primary intention occurs in:-
 - a. Large traumatic wounds
 - b. Pressure ulcers
 - c. Surgical incision with sutures
 - d. Infected wounds

10. A post-surgical patient develops excessive bleeding despite normal platelet count. The most likely cause is:-
 - a. Platelet adhesion effect
 - b. Polycythemia
 - c. Increased fibrinolysis only
 - d. Coagulation factor deficiency

11. The extrinsic coagulation pathway is primarily assessed by:-
 - a. Prothrombin time (PT)
 - b. Bleeding time
 - c. Activated partial thromboplastin time (aPTT)
 - d. Platelet count

12. Thrombin plays a key role in hemostasis by:-
 - a. Breaking down fibrin
 - b. Activating platelets only
 - c. Preventing clot formation
 - d. Converting fibrinogen to fibrin

13. The most commonly transfused blood component in surgical patients is:-
 - a. Platelets
 - b. Packed red blood cells
 - c. Fresh frozen plasma
 - d. Whole blood

14. A blood group considered to as the universal donor for red blood cells:-
 - a. AB positive
 - b. O positive
 - c. O negative
 - d. AB negative

15. A sudden rise in temperature and chills during blood transfusion suggests:-
- Allergic reaction
 - Fluid overload
 - Febrile non-hemolytic reaction
 - Iron overload
16. Superficial incisional surgical infections involve:_
- Internal organs only
 - Fascia and muscle layers
 - Bone and joints
 - Skin and subcutaneous tissue
17. A patient-related risk factor for surgical site infection:-
- Duration of surgery
 - Operating room sterility
 - Poor glycemic control
 - Surgical technique
18. Surgical wound dehiscence usually can occur due to:-
- Infection weakening wound edges
 - Good collagen synthesis
 - Early physiotherapy
 - Improper suturing
19. The most common overall reason for performing surgery is to:-
- Improve cosmetic appearance
 - Diagnose disease
 - Treat or correct pathology
 - Reduce recurrent admissions
20. Removal of a diseased organ to eliminate the cause of symptoms is an example of:-
- Exploratory surgery
 - Ablative surgery
 - Reconstructive surgery
 - Transplant surgery
21. Surgery aimed at relieving symptoms without curing the disease is called:-
- Palliative surgery
 - Curative surgery
 - Preventive surgery
 - Diagnostic surgery

22. A patient who received epidural anesthesia for lower limb surgery may initially demonstrate:-
- Increased sensation
 - Hypertonia
 - Motor weakness in lower limbs
 - Spasticity
23. Local anesthetics work by blocking:-
- Calcium channels
 - Sodium channels in nerve fibers
 - Potassium release
 - Oxygen transport
24. A surgical incision which is least likely to interfere with abdominal muscle function:-
- Pfannenstiel incision
 - Paramedian incision
 - Midline incision
 - Upper midline incision
25. The main physiotherapy concern following an upper abdominal incision is to:-
- Pelvic floor dysfunction
 - Lower limb weakness
 - Reduced lung expansion & coughing pain
 - Urinary retention
26. Breathing exercise MOST appropriate on post-operative day 1 after thoracic surgery:-
- Deep diaphragmatic breathing
 - Maximal resisted breathing
 - Breath holding
 - Forced expiration
27. A surgical procedure involving removal of a lobe of the lung:-
- Pneumonectomy
 - Segmentectomy
 - Lobectomy
 - Thoracotomy
28. Knowledge of surgical tubes and drains helps physiotherapists to:-
- Assist in inserting the drains
 - Make antibiotic prescription decisions
 - Assist during the surgery
 - Provide safe mobilization & respiratory care

29. Surgical removal of part or all of an organ due to cancer is referred to as:-
- Reconstruction
 - Resection
 - Debridement
 - Biopsy
30. Early mobilization after cancer surgery is mostly indicated to help prevent:-
- Post-surgery tumor recurrence
 - Post-surgery infections
 - Post-surgical pain
 - Pulmonary complications & muscle wasting

SECTION B: SHORT ANSWER QUESTIONS (20 MARKS)

- Differentiate between diagnostic endoscopy and therapeutic endoscopy. (4 marks)
- Explain the importance of chest x-ray after thoracic surgery (4 marks)
- Explain the importance of wound splinting during physiotherapy after surgery (6 marks)
- Describe the effect of transfusion complications on respiratory physiotherapy (6 marks)

SECTION C: LONG ANSWER QUESTIONS (20 MARKS)

- Discuss the general principles of physiotherapy for cancer surgery patients (10 marks)
- Describe the long-term physiotherapy considerations for patients after open heart surgery (10 marks)