



**AMREF INTERNATIONAL UNIVERSITY**  
**SCHOOL OF MEDICAL SCIENCES**  
**DEPARTMENT OF REHABILITATIVE MEDICINE**  
**BACHELOR OF SCIENCE IN PHYSIOTHERAPY**  
**END OF JAN-APRIL 2025 SEMESTER EXAMINATIONS**

**UNIT CODE: PHT 226**

**UNIT NAME: GENERAL SURGERY (Special Exam)**

**DATE: 15<sup>th</sup> April 2025**

**TIME: TWO HOURS**

**START: 2:00 PM STOP: 4.00 PM**

**INSTRUCTIONS**

- 1. Attempt all questions as per the instructions in each section**
- 2. This exam is marked out of 70 marks**
- 3. This Examination comprises of Sections A, B and C**
- 4. It is the student's responsibility to report any page and number missing in this paper.**
- 5. Total number of pages are 7 including the cover page.**
- 6. Read through the instructions carefully before starting.**
- 7. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam.**
- 8. Do not write on this question paper, use the provided booklet to write your answers**

**Section A. MCQs. Answer all the questions (30 marks)**

1. A melanoma cancer will be diagnosed through;
  - A. Shave biopsy
  - B. Punch biopsy
  - C. Sentinel biopsy
  - D. Endoscopic biopsy
2. The mechanism of underwater seal drainage is?
  - A. Positive pressure during expiration pushes air and fluid out of the pleural space
  - B. Negative pressure during inspiration pushes air and fluid out of the pleural space
  - C. Air moves from lower to higher pressure along a pressure gradient
  - D. The bottle is always kept above the level of the patient's chest
3. The amount of air draining out of the pleural space in underwater seal drainage is reflected through;
  - A. Bubbling
  - B. Dripping
  - C. Running
  - D. Movement
4. In under water seal drainage, air drains out of the pleural space during?
  - A. Inspiration
  - B. Movement
  - C. Resting
  - D. Expiration
5. Transverse incision are most preferable due to;
  - A. Less costly
  - B. More accessible
  - C. Fewer complications
  - D. Easy to incise
6. Scalpel incisions best heal through;
  - A. Secondary intention
  - B. Primary intention
  - C. Absorbable sutures
  - D. Clip ligatures
7. A collection of pus within a naturally existing anatomical cavity is termed as?
  - A. Pneumothorax
  - B. Hemothorax
  - C. Empyema
  - D. Pleural effusion
8. In wound healing, correct tension of the sutures is achieved through
  - A.
  - B.
  - C.

- D.
9. Healing of the wound from the bottom upwards is an indication of
    - A. A scapel wound
    - B. A minor wound
    - C. Poor opposition of the wound
    - D. Clean wound
  10. Immediate after an injury, white blood cells migrate to the injury site with an aim of;
    - A. Causing a blood clot
    - B. Removing debris
    - C. Causing vasoconstriction
    - D. Causing redness
  11. Angiogenesis is
    - A. Formation of new blood vessels
    - B. Formation of the red blood cells
    - C. Formation of new body tissues
    - D. Formation of new nerves
  12. Which of the following factors affecting wound healing are wound related factors?
    - A. Age of the patient
    - B. Hemostasis and debridement
    - C. Timing of closure
    - D. Nature of injury
  13. Wound toileting involves;
    - A. Clean skin with antiseptics and irrigating the wound with saline
    - B. Irrigating the skin with antiseptics and cleaning the wound with saline
    - C. Debriding all dead tissue and foreign matter.
    - D. Control of residual bleeding with compression, ligation
  14. The primary aim of physiotherapy treatment before surgery is to:
    - A. Strengthen a patient's fitness to undergo surgery
    - B. Reduce pain,
    - C. Improve range of motion
    - D. Enhance the surgery's outcome.
  15. Hypernatremia is?
    - A. Caused by low intake of potassium
    - B. Caused by high intake of potassium
    - C. Caused by low intake of sodium
    - D. Caused by high intake of sodium
  16. Which body organs are directly concerned with maintaining the acid-base balance in the body?
    - A. The brain and spinal cord
    - B. Liver and kidney
    - C. Lungs and kidney
    - D. Lungs and the heart
  17. An increase in alkaline causes pH levels to;

- A. Rise
  - B. Fall
  - C. Remain constant
  - D. All of the above
18. Obesity people are more prone to getting respiratory acidosis due to;
- A. Inhalation is compromised
  - B. Exhalation is compromised
  - C. The blood vessels are compromised
  - D. The lungs have collapsed
19. Severe diarrhoea will lead to which metabolic acidosis?
- A. Diabetic acidosis
  - B. diabetic ketoacidosis
  - C. Hyperchloremic acidosis
  - D. Lactic acidosis
20. Excess vomiting will lead to?
- A. Metabolic alkalosis
  - B. Metabolic acidosis
  - C. Diabetic alkalosis
  - D. Hypochloremic alkalosis
21. Which of the following statements are true about cancer?
- A. Abnormal cells grow uncontrollably
  - B. Cancer can affect both cells including nerve cells
  - C. A neoplasm and malignant tumour are not forms cancers
  - D. All of the above
22. Metastatic cancer is?
- A. A cancer that has Grown and passed its initial boundaries
  - B. A cancer that has spread from the place where it first formed to another place
  - C. A cancerous tumor
  - D. A severe form of cancer
23. Prostate cancers are?
- A. Adenocarcinomas.
  - B. Carcinomas
  - C. Sarcomas
  - D. leukemias
24. The technique of surgery that uses beams of light energy to remove very small cancers is termed as?
- A. Laser surgery
  - B. Cryosurgery
  - C. Microscopically surgery
  - D. Electrosurgery
25. A surgical procedure to remove a lobe of the lung is termed as?
- A. Thoracotomy
  - B. pneumonectomy,

- C. Lobectomy
  - D. Segmentectomy
26. Atelectasis is
- A. Lung collapse
  - B. Lung expansion
  - C. Lung failure
  - D. Lung spasms
27. The releasing of growth factors from platelets to initiate the healing process of a wound occurs in which stage of wound healing?
- A. Inflammation stage
  - B. Proliferative stage
  - C. Hemostasis stage
  - D. Remodelling stage
28. Which of the following scars can limit movement?
- A. Keloids
  - B. Atrophic
  - C. Hypertrophic
  - D. Contractures
29. Poor blood clotting will lead to;
- A. Von Willebrand disease
  - B. hemorrhagic telangiectasia
  - C. haemophilia disease
  - D. all of the above
30. Which of the following statements is true concerning contaminated wounds?
- A. Should not be closed immediately
  - B. Should be closed immediately
  - C. They heal via primary intention
  - D. All of the above

**Section B. Short answer questions. Answer all the question (20 marks)**

1. Risk factors of coronary artery disease. 5 marks
2. List symptoms of bleeding disorders 5 marks
3. List five potential complications of untreated respiratory acidosis. 5 marks
4. List five causes of lactic acidosis. 5 marks

**Section C: Long essay question: choose Either Q1 or both 2&3 (20 marks)**

1. Discuss the goals of Physiotherapy treatment of a patient underwater seal drainage. 20 marks
2. Discuss heamothorax surgical, and physiotherapy management. 10 marks
3. Discuss the cardiac rehabilitation of an open heart surgery patient. 10 marks