



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

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2024

UNIT CODE: PHT 227

UNIT NAME: GENERAL SURGERY 2 SPECIAL EXAM

DATE: APRIL 2024

INSTRUCTIONS

- 1. All students will have two (2) hours to complete the examination**
- 2. Attempt all questions as per the instruction**
- 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.**
- 7. Upon finishing the exam paper, on submission, the message 'Your examination has been submitted' will appear.**

TOTAL: _____/70

PERCENT: _____/100%

POINTS EARNED TOWARDS FINAL GRADE _____/70

SECTION A (30 Marks)

1. **The transfer of an individual's own tissue to another part of the body is called? (1 mark)**

- A) Allotransplant
- B) Auto transplant
- C) Syngeneic transplant
- D) Xenotransplant

2. **Which of the following statements about scars is not true? (1 Mark)**

- A) Both hypertrophic scars and keloids represent an overabundance of fibroplasia.
- B) The risk of Hypertrophic increases if epithelialization takes longer than 21 days.
- C) Peritoneal adhesions are fibrous bands of tissues that can form between organs and the internal body wall.
- D) External compression is effective in managing peritoneal scars.

3. **The following components can be transfused. Determine which component cannot be transfused (1 marks)**

- A) Frozen red blood cells.
- B) Leukocyte-Reduced/washed red blood cells.
- C) Tranexamic Acid.
- D) Leukocytes

4. **Which of the following statements is not true about cardiac tumors. (1 Mark)**

- A) Atrial thrombus may be expected to resolve with anticoagulation, whereas a tumor requires surgical intervention.
- B) Anticoagulation can potentially increase the risk of peripheral embolization in patients with cardiac tumors.
- C) Cardiac myxomas are the least common cardiac tumors.
- D) Benign tumors Have a 3:1 female preference.

5. **A patient presented with the following non-pulmonary symptoms:**

Pancoast's syndrome, phrenic nerve palsy, Recurrent laryngeal nerve palsy and localized chest wall pain.

Which of the following diseases is the patient likely presenting with? (1 Mark)

- A) Lung cancer (primary)
- B) Bronchiectasis
- C) Mediastinitis
- D) None of the above

6. **Which electrolyte is dominant in the extracellular compartment. (1 mark)**

- A) Sodium
- B) Phosphate
- C) Sulphate
- D) Magnesium

7. **Which of the following factors is not an Indication for Replacement of Blood and Its components. (1 Mark)**

- A) Improvement in Oxygen-Carrying Capacity
- B) Treatment of anemia
- C) Volume replacement
- D) To counter fluid overload

8. **Which statement is true about ventricular septal defects. (1 Mark)**

- A) Prolonged VSD's can lead to Eisenmenger's syndrome.

- B) Maternal Epstein barr virus can contribute to the development of VSD's in infants inutero.
- C) Probability of closure is directly related to the age at which the defect is observed.

9. Determine which statement is false. (1 Marks)

- A) Aortic coarctation is an acquired cardiac disease.
- B) Aortic coarctation is characterized by high blood pressure in the upper extremities and low pressure/ perfusion in the lower extremities.
- C) The most common etiology of coarctation of the aorta is constriction of the aorta in the region of the patent ductus arteriosus as a result of ductal shrinkage.
- D) rib-notching on chest radiograph is a common finding in patients with aortic coarctation.

10. In supra mammary anterolateral thoracotomy, which muscles are not transected. (1 Mark)

- A) Pectoralis major
- B) Subclavius muscle
- C) Pectoralis minor
- D) Intercostal muscles

11. The endoscope that examines the respiratory tract is called as? (1 Mark)

- A) Bronchoscopy
- B) Laparoscopy
- C) Colonoscopy
- D) Arthroscopy

12. Extraction of a small piece of the diseased organ is called? (1 mark)

- A) Biopsy
- B) surgery
- C) chemotherapy
- D) Replacement

13. Which of the following is not a complication resulting from lung decortication. (1 Mark)

- A) Severe post operative pain
- B) Atheromas
- C) Hemorrhage
- D) Persistent air leaks

14. The following agents are anaesthetic agents. Which one is not? (1 Mark)

- A) Inhaled anaesthetic
- B) Beta blocker
- C) Local anaesthetic
- D) Neuromuscular blocker

15. Which statement is not true about hypernatremia. (1 Mark)

- A) Excessive loss of free water through excretion e.g., kidney or ADH related issues is a possible cause
- B) It can occur as a result of Inadequate water intake
- C) It is defined as a high serum sodium level occurring when there is little extracellular water relative to sodium.
- D) None of the above.

16. Carney complex is an autosomal dominant disorder characterized by two or more of the following conditions, except? (1 mark)

- A) atrial and extracardiac myxomas
- B) Schwannomas
- C) cutaneous lentiginosis

D) mediastinal cysts

17. Thoracoscopy is a procedure a doctor uses to look at the space inside the chest (outside of the lungs). (1 Mark)

A) True

B) False

18. Neuromuscular blockers act on sodium channels to block transmission of neural impulses. (1 Mark)

A) True

B) False

19. Regarding anaesthesia: (1 Mark)

A) Pharmacokinetics is the study of what a drug does to the body.

B) The two categories of neuromuscular blockers are amides and esters.

C) Cardiac tamponade is a sign of cardiovascular toxicity from anaesthesia.

D) None of the above.

20. Regarding TNM staging of cancer, which choice correctly explains T1-T4, N1-N3, M0. (1 Mark)

A) Metastatic cancer.

B) Locally advanced cancer, early stages.

C) Regional cancer.

D) Indicates carcinoma in situ.

21. During cancer staging, FDG PET combines a PET scanner and an X-ray CT scanner to give information on the size and shape of abnormal masses. (1 Mark)

A) True

B) False

22. A patient with history of rheumatic fever presented with mitral valve area of 4-5 cm².

What is considered to be: (1 Mark)

A) Mild mitral stenosis

B) Moderate mitral stenosis

C) Normal

23. Which muscle is not cut during a muscle sparing axillary thoracotomy. (1 Mark)

A) Innermost intercostal muscle

B) External intercostal muscle

C) Internal intercostal muscle

D) Pectoralis major

24. Which of the following statements is true about thoracotomy. (1 Mark)

A) Incision made between ribs are made along the superior border of the inferiorly lying rib in order to have a better view of the operative field.

B) Incision made between ribs are made along the superior border of the inferiorly lying rib in order to prevent damage to the neurovascular bundle.

C) Anterolateral thoracotomy is common with open heart surgeries.

D) None of the above.

25. Depending on the extent and burden of the disease, a patient presenting with lung cancer can have the following surgical procedure done on his/her lung except? (1 Mark)

- A) Segmentectomy
- B) Wedge resection
- C) Pneumonectomy
- D) Plombage

26. Prior tracheostomy/ intubation is not a risk factor for tracheal injury. (1 Mark)

- A) True
- B) False

27. Prolonged ventricular septal defect can result in Eisenmenger's syndrome. (1 Mark)

- A) True
- B) False

28. Which of the following is not a type ventricular septal defect. (1 Mark)

- A) Perimembranous
- B) Muscular
- C) Trabecular
- D) sinus venosus type

29. Which statement is false regarding hypocalcemia signs and symptoms (1 marks)

- A) Positive trousseau sign
- B) Positive Chvostek sign
- C) Kidney stone formation
- D) Arrhythmias

30. Which factor does not justify the role of pre-operative chemotherapy (1 mark)

- A) The primary tumor may be down staged enhancing resectability.
- B) Patients are better able to tolerate chemotherapy before surgery and are more likely to complete the prescribed regimen than after surgery.
- C) Systemic micro metastases are treated.
- D) Reprogramming of energy metabolism.

SECTION B (20 Marks)

List 1 difference between hypertrophic scars and keloids. (1 Marks)

In a chest Tube Drainage System Chambers, state two types of suction control chamber. (2 Marks)

State the 4 physiologic events that participate in the hemostatic process (4 Marks)

List 3 features of benign cardiac tumors. (3 Marks)

State 3 risk factors for atherosclerosis. (3 Marks)

Name 2 classifications of parenteral nutrition (2 Marks)

State 3 differences between transudate and exudate effusions. (3 Marks)

What is the difference between regional and distant metastasis. (2 Marks)

SECTION C (20 Marks)

1a. Outline the pathophysiology of coronary artery disease (6 Marks)

1b. List 4 prevention strategies for atherosclerosis. (4 Marks)

2a. State and explain the phases of wound healing (8 Marks)

2b. Outline two ways in which wounds can heal (2 Marks)