



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR**

SECOND YEAR, FIRST TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
MAIN EXAM**

COURSE CODE: BSP 215

COURSE TITLE: GENERAL SURGERY I

DATE: MONDAY 4TH DEC 2023

TIME: 2:00-4:00 PM

INSTRUCTIONS TO CANDIDATES

ANSWER ALL QUESTIONS

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: MULTIPLE CHOICE QUESTIONS

20 MARKS

1. Which *ONE* of the following ultrastructural features is believed to allow for the increased permeability of the vascular endothelium in acutely inflamed tissue?
 - A. Cytoplasmic micropinocytotic vesicles.
 - B. Gaps in endothelial tight junctions.
 - C. Gaps in the basement membrane.
 - D. Increase in number of phagolysosomes.
2. Which *ONE* of the following is *not* an endogenous mediator of increased vascular permeability?
 - A. Angiotensin.
 - B. C3a and C5a.
 - C. 5-hydroxytryptamine.
 - D. Prostaglandin E2.
3. Which *ONE* of the following is *not* an acceptable characteristic of a granuloma.
 - A. Composed of altered macrophages.
 - B. Composed of fused macrophages (giant cells).
 - C. Composed of epithelioid cells.
 - D. Composed of polymorphonuclear leucocytes, cellular debris and fibrin.
4. Which *ONE* of the following does *not* impair healing of a wound?
 - A. Deficiency of galactosamine.
 - B. Deficiency of vitamin C.
 - C. Excess of adrenal glucocorticoid hormones.
 - D. Good vascular supply.
5. The first thing to occur in acute inflammation is
 - A. Vasodilation
 - B. Increase permeability
 - C. Diapedesis
 - D. Vasoconstriction
6. Regarding chronic inflammation which is false
 - A. It can be caused by persistent infection
 - B. It can be caused by prolonged exposure to toxic agents
 - C. It may contribute to the formation of atherosclerosis
 - D. It primarily involves tissue destruction
7. Which of the following factors can contribute to delayed wound healing as a post-operative complication?
 - A. Sterile surgical technique
 - B. Adequate blood supply
 - C. Smoking
 - D. Early removal of sutures
8. A patient who develops a deep vein thrombosis (DVT) post-operatively is at risk for which serious complication?
 - A. Urinary tract infection
 - B. Pulmonary embolism

- C. Wound infection
 - D. Hypertension
9. A patient who develops a deep vein thrombosis (DVT) post-operatively is at risk for which serious complication?
- A. Urinary tract infection
 - B. Pulmonary embolism
 - C. Wound infection
 - D. Hypertension
10. Which of the following is a pre-operative complication associated with anesthesia?
- A. Surgical site infection
 - B. Hypoxia
 - C. Deep vein thrombosis
 - D. Wound dehiscence
11. What is the primary goal of pre-operative assessment?
- A. Diagnose post-operative complications
 - B. Prevent pre-operative complications
 - C. Monitor vital signs during surgery
 - D. Administer anesthesia
12. What is the primary goal of pre-operative physiotherapy?
- A. Pain management
 - B. Reducing complications
 - C. Improving surgical precision
 - D. Enhancing patient comfort
13. In post-operative physiotherapy, what is the purpose of using assistive devices such as crutches or walkers?
- A. To keep patients from moving at all
 - B. To make patients dependent on others
 - C. To facilitate safe mobility and support during recovery
 - D. To keep patients entertained
14. Which of the following heart disorders is often associated with a "click-murmur" sound on auscultation due to a valve not closing properly?
- A. Aortic dissection
 - B. Mitral valve prolapse
 - C. Aortic stenosis
 - D. Rheumatic heart disease
15. Which of the following conditions is characterized by elevated blood pressure within the arteries of the lungs?
- A. Pulmonary embolism
 - B. Pulmonary hypertension
 - C. Hypertrophic cardiomyopathy
 - D. Myocardial infarction
16. What is the condition in which a tear occurs in the inner layer of the aorta, the large blood vessel branching off the heart?

- A. Aortic dissection
 - B. Angina pectoris
 - C. Myocarditis
 - D. Mitral valve prolapse
17. Which of the following is a condition in which the heart's electrical system is disrupted, leading to an irregular heartbeat?
- A. Atherosclerosis
 - B. Heart murmur
 - C. Arrhythmia
 - D. Hypertension
18. How does emphysema affect lung function?
- A. It improves lung function.
 - B. It has no effect on lung function.
 - C. It reduces lung function.
 - D. It only affects the upper respiratory tract
19. Which of the following vitamins is necessary for the synthesis of several clotting factors in the liver?
- A. Vitamin A
 - B. Vitamin C
 - C. Vitamin D
 - D. Vitamin K
20. What is the primary function of vasoconstriction in hemostasis?
- A. To increase blood flow to the injured area
 - B. To seal the damaged blood vessel
 - C. To promote platelet aggregation
 - D. To release clotting factors

SECTION B: SHORT ANSWER QUESTIONS 40 MARKS

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| 1. Discuss signs and symptoms of emphysema | 5 Marks |
| 2. Explain the characteristics of exudative effusion | 5 Marks |
| 3. Explain the role of physiotherapy in pneumothorax management | 5 Marks |
| 4. Discuss the clinical manifestations in bronchiectasis | 5 Marks |
| 5. Discuss factors that affect bleeding during surgery | 5 Marks |
| 6. Explain the roles of Physiotherapy following lung surgery | 5 Marks |
| 7. Discuss the clinical presentation and signs of a patient with DVT | 5 Marks |
| 8. Explain the physiotherapy management of the patient post breast surgery | 5 Marks |

SECTION C: LONG ANSWER QUESTIONS 40 MARKS

1. Cardiorespiratory physiological changes post-surgery plays a key role in stepwise progressive rehabilitation plan. Discuss 20 Marks
2. Explaining in detail discuss the post-operative complications and the physiotherapy goals