



*(University of Choice)*

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

**Main CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**Second YEAR SECOND semester EXAMINATIONS  
FOR THE DEGREE OF OPTOMETRY**

**COURSE CODE: BML231: Main Exam**

**COURSE TITLE: GENERAL PATHOLOGY**

**DATE: 28/04/2022**

**TIME: 1-3PM**

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**INSTRUCTIONS TO CANDIDATES**

This paper is divided into three sections, **A B** and **C**, carrying respectively: Multiple Choice Questions (**MCQs**), Short Answer Questions (**SAQs**) and Long Answer Questions (**LAQs**).

TIME: 2 Hours

MMUST observes **ZERO** tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over.

1. Which one of the following is/are the core aspects of diseases in pathology
  - A. Etiology,
  - B. Pathogenesis
  - C. Morphologic changes
  - D. Functional derangements and clinical significance.
2. The mechanism through which the cause operates to produce the pathological and clinical manifestations is called?
  - A. Prognosis
  - B. Pathogenesis
  - C. Exudation
  - D. Diagnosis
3. Which of the following techniques is involved in examination of tissues biopsy?
  - A. Histopathology
  - B. Cytopathology
  - C. Hematopathology
  - D. Cytogenetics
4. Which among the following is regarded as the founder of the field of cellular pathology?
  - A. Rudolph Vichow
  - B. G.B Morgagni
  - C. Hippocrates
  - D. Portret Bethesda
5. Which one of the following is/are not possible outcome of cell injury?
  - A. The cell may adapt to the situation
  - B. The cell may acquire a reversible injury
  - C. The cell may obtain an irreversible injury
  - D. The cell may die
6. The accumulation of iron-containing pigment derived from ferritin is called?
  - A. Melanin
  - B. Jaundice
  - C. Hemosiderin
  - D. Bilirubin
7. Which of the following is not mechanism of necrosis
  - A. Hypoxia
  - B. Free radical-induced cell injury
  - C. nuclei damage
  - D. Increased intracellular calcium level
8. Which one of the following is not etiology of hypoxia
  - A. Anaemia
  - B. Ischemia
  - C. Carbon dioxide
  - D. Carbon monoxide
9. Which of the following is a type of necrosis?
  - A. Gangrenous necrosis
  - B. Liquidifactive necrosis
  - C. Tryglyceride necrosis
  - D. Protein necrosis

10. A response of vascularized tissues towards an injurious cell is called?
  - A. inflammation
  - B. Reaction
  - C. Pathogenesis
  - D. Necrosis
11. Which of the following lipids is a response for pain during inflammation?
  - A. Prostaglandin
  - B. Serotonin
  - C. Bradykinin
  - D. Glycerides
12. Which of the following complement system is used to increase permeability during inflammation?
  - A. C3a
  - B. C3b
  - C. C5b
  - D. C3ai
13. Which of the following is edema protein-rich fluid?
  - A. Exudate
  - B. Transudate
  - C. Pus
  - D. Serous
14. Which one of the following is a hematological derangement as a result of systemic inflammation?
  - A. Fever
  - B. Leucopenia
  - C. Weight loss
  - D. Autonomic
15. Which one of the following cytokines does not mediate heat during inflammation?
  - A. IL-1
  - B. IL-2
  - C. IL-6
  - D. TNF-alpha
16. Which one is not an example of a benign mesenchymal tumor?
  - A. Fibroma
  - B. Lipoma
  - C. Chondroma
  - D. Adenoma
17. Which of the following is not a cytologic feature of anaplasia?
  - A. Nuclear & cellular pleomorphism
  - B. Hypochromasia
  - C. Frequent mitoses
  - D. Loss of polarity
18. Which of the following cancers occurs as a result of a fatty diet?
  - A. Colonic cancer
  - B. mesothelioma
  - C. cervical cancer

- D. lung cancer
19. Lack of the -----genes activity reduces apoptosis by decreasing BAX transcription
- A. BCL2
  - B. Rb1
  - C. BRCA1
  - D. p53
20. Which of the following is an example of intraocular cancer?
- A. Melanoma
  - B. Lymphoma
  - C. Glycoma
  - D. Cataroma

**SECTION B (40 MARKS)**

1. Describe the course of disease (8 marks)
2. Compare & contrast the various types of cellular adaptation (8 marks)
3. Compare & contrast necrosis & apoptosis (5 marks)
4. Describe the etiology of cancer? (5 marks)
5. Discuss the pathophysiology of the cardinal sign of acute inflammation (8 marks)
6. Why is inflammation a largely protective response? (6 marks)

**SECTION C (60 MARKS)**

1. Discuss Hordeolum disease
  - a. Define (2 marks)
  - b. Types (2 marks)
  - c. Causes (2 marks)
  - d. Risk factor (2 marks)
  - e. Clinical presentation (4marks)
  - f. Complication (2 marks)
  - g. Differential diagnosis (2 marks)
  - h. Treatment (2 marks)
  - i. Prevention and control (2 marks)
2. Describe the causes of diseases (20 marks)
3. Discuss any five ocular diseases (20 marks)