



(University of Choice)

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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2019/2020 ACADEMIC YEAR**

FOURTH YEAR SEMESTER TWO EXAMINATIONS

**FOR THE DEGREE OF
BACHELOR OF OPTMETRY AND VISION SCIENCES**

COURSE CODE: BML 422

COURSE TITLE: GENERAL AND SYSTEMIC PATHOLOGY

DATE: 6TH OCTOBER 2020

TIME: 8.00 -10.00 AM

INSTRUCTIONS TO CANDIDATES

This examination paper consists of three sections, **A** (Multiple Choice Questions), **B** (Short Answer Questions), and **C** (Long Answer Questions). Answer all questions in ALL the sections.

MMUST observes ZERO tolerance to examination cheating

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

BML 421: GENERAL AND SYSTEMIC PATHOLOGY

SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)

- Q1. Which of the following is correct regarding tuberculosis?
- It is caused by *Mycoplasma tuberculosis*
 - Most people acquiring the infection develop active pulmonary tuberculosis
 - Symptoms of a chronic pneumonia and the typical presentation
 - Microscopically, non-caseous granulomas are seen
- Q2. Dilatation of a blood vessel thought to be caused by weakening of the media especially of abdominal and iliac arteries is known as:
- Embolism
 - Aneurysm
 - Atheroma
 - Thrombus
- Q3. A cancer that has spread throughout the whole body is:
- Localized
 - Malignant
 - Benign
 - Metastasized
- Q4. Which of the following pathologies are incorrect regarding *Streptococcus pneumoniae* infections?
- Lobar pneumonia
 - Meningitis
 - Allergic rhinitis
 - Nasopharyngitis
- Q5. Which of the following is the frequent cancer in Kenyan women?
- Breast cancer
 - Kaposi's sarcoma
 - Cervical cancer
 - Oesophageal cancer
- Q6. Which of the following is a feature of the nuclear: cytoplasmic ratio for malignant tumours
- Decreased
 - Increased in reactive states
 - Increased
 - Decreased in reactive states

- Q7. Not true of the causes of pneumoconioses:
- a) Coal dust
 - b) Silica
 - c) Asbestos
 - d) Alcohol
- Q8. The passive escape of leukocytes which may be facilitated by chemotactic mediators is called:
- a) Diapedesis
 - b) Adherence
 - c) Ecchymosis
 - d) Petechial haemorrhagic
- Q9. Which of the following is implicated in the development of cervical cancer?
- a) Human herpes-8 virus
 - b) Human papilloma virus
 - c) Epstein-Barr virus
 - d) Hepatitis B virus
- Q10. A fluid exudate described as clear water fluid of low protein content especially fibrinogen is known as:
- a) Catarrhal
 - b) Serous
 - c) Haemorrhagic
 - d) Petulant
- Q11. Abnormal accumulation of fluid in the peritoneal cavity is called:
- a) Peritonitis
 - b) Pericardial effusion
 - c) Hydrothorax
 - d) Ascites
- Q12. Which of the following is the leading cancer in Kenyan men?
- a) Lung cancer
 - b) Prostate cancer
 - c) Bone cancer
 - d) Cervical cancer
- Q13. Which of the following is not true regarding Kwashiorkor?
- a) Common during the first year of life
 - b) Loss of visceral proteins
 - c) Hypoalbuminemia
 - d) Generalized edema

- Q14. Which of the following is correct regarding cirrhosis?
- Most patients die of decompensated hepatic failure
 - It is defined by the presence of fibrosis in the liver
 - Kupffer cells are the key cells implicated in development of fibrosis
 - Ascites occur early after the onset of cirrhosis
- Q15. Which of the following refers to pain during acute inflammation?
- Rubor
 - Tumor
 - Dolor
 - Calor
- Q16. Lack of lumen development of the gastrointestinal tract is referred to as:
- Stenosis
 - Lesion
 - Atresia
 - Atrophy
- Q17. An ulcer with rolled out edges is commonly associated with:
- Basal cell carcinoma
 - Squamous cell carcinoma
 - Tuberculosis
 - Syphilis
- Q18. Malignant tumors of blood vessels include:
- Angiosarcoma
 - Haemangioma
 - Lymphangioma
 - Kaposi's sarcoma
- Q19. Morphology of shock
- Hypoxic encephalopathy
 - Caseous necrosis
 - Acute renal tubular necrosis
 - Diffuse alveolar damage
- Q20. True of white (anemic) infarct:
- Arterial occlusion of solid organs
 - Occurs in loose tissues
 - Due to venous occlusion
 - Occurs in tissues congested from slow venous outflow

SECTION B: SHORT ANSWER QUESTIONS (40 MARKS)

1. Define and explain the following terms (8 marks).
 - a) Hypertrophy
 - b) Metaplasia
 - c) Anaplasia
 - d) Pyknosis
2. State the morphologic appearance and outcomes of acute inflammation (8 marks).
3. List any eight cellular accumulations (8 marks).
4. State any eight causes of cell injury (8 marks).
5. Outline the factors that affect wound healing (8 marks).

SECTION C: LONG-ANSWER QUESTIONS (40 MARKS)

1. Discuss aetiology, mechanism, morphology and clinic-pathologic features of chronic inflammation (20 marks).
2. Describe hypertension under the following headings:
 - a) Classification (2 marks).
 - b) Aetiology (8 marks).
 - c) Pathogenesis (3 marks).
 - d) Morphologic features (4 marks).
 - e) Complications (3 marks).