



**KISII UNIVERSITY**  
**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE**  
**DIPLOMA IN CLINICAL MEDICINE AND SURGERY**  
**THIRD SEMESTER 2022/2023**  
**[MAY-AUGUST, 2023]**

**CIMS 0126: GENERAL PATHOLOGY III**

**STREAM: Y1S3**

**TIME: 2 HOURS**

**DAY: WEDNESDAY, 9:00 – 12:00 PM**

**DATE: 26/07/2023**

**INSTRUCTIONS**

**1. Do not write anything on this question paper.**

**PART 1**

**SECTION A: SIX SHORT ESSAY QUESTION: EACH (10 MKS) ANSWER ALL QUESTION (60MKS)**

1. Discuss factors influencing infection establishment
  - a) In the Host (factors that prevent and limit the spread of infection) [5 mks]
  - b) In micro-organisms (factors enhancing invasive capacity) (5 mks)
2. Describe causes of failure of protective and defence mechanisms against infection [10 mks]
3. Discuss tetanus under the following subheadings
  - a) Definition (1mk)
  - b) Mode of spread (2mks)
  - c) Effects (7mks)
4. Discuss the pathology of primary tuberculosis (10 mks)
5. Outline five clinical features of
  - a) Lepromatous leprosy (5mks)
  - b) Tuberculoid leprosy (5mks)
6. Outline five
  - a) Complications of actinomycosis (5mks)
  - b) Manifestations of secondary syphilis (5mks)

**SECTION B: LONG ESSAY QUESTIONS (40 MKS) ANSWER ONLY TWO**

1. Discuss the pathology of

a) Tertiary (late) syphilis (10mks)

b) How a DNA virus uses the host cell to replicate and at the same time cause cell death (10mks)

2. a) Outline both DNA and RNA oncogenic viruses and their associated malignancies (10 mks)

b) Discuss the pathology and pathogenesis (pathophysiology) of malaria (10 mks)

3. Discuss host and virus interactions under the following subheadings

a) Changes in the infected cells c) Immune response

b) Interferon production by infected cell d) Inflammatory response

**PART II: MCQS AND TRUE OR FALSE**

**PART A: MCQS ONLY ONE CHOICE IS CORRECT**

1. Exotoxins

a) Are secreted by living bacteria c) Do not stimulate antibody production

b) Are usually produced by GR-VE bacteria d) Are complex proteins (LPS)

2 Staphylococcus aureus

a) Is a Gram +Ve bacteria c) Produces hyaluronidase

b) Occurs in chains d) Commonly causes septicaemia as a general complication

3. Local lesion caused by staphylococcus aureus include

a) Boils c) Erysipelas

b) Impetigo d) Tonsillitis

4. Commonest general lesion caused by streptococcus pyogenes include

a) Septicaemia c) Osteomyelitis in children

b) Pyaemia d) RHD (Rheumatic Heart Disease)

5. One of the following causes chronic infection (granulomas)

a) Staphylococcus aureus c) Neisseria meningitides

b) Neisseria gonorrhoea d) Mycobacterium tuberculosis

6. Oncogenic virus include

a) EBV b) Measles c) CMV d) HSV

7. *Pneumocystis jirovecii* (carinii) is

- a) A protozoa
- b) A bacterial
- c) A fungus
- d) Associated with cervical cancer

8. One of the following is a benign epithelial tumor

- a) Papilloma
- b) Osteoma
- c) Chondroma
- d) Leiomyoma

9. Benign tumors

- a) spread very fast
- b) Grow rapidly
- c) Invade and destroy normal tissues
- d) Have well circumscribed boundaries and are often encapsulated

10. Malignant epithelial tumors include

- a) Squamous cell carcinoma
- b) Malignant fibrous histiocytoma (MFH)
- c) Leiomyosarcoma
- d) Rhabdomyosarcoma

11. Connective tissue benign tumors include

- a) villous adenoma
- b) Tubular adenoma
- c) Osteoma
- d) Papilloma

12. The following are connective tissue examples

- a) Fibrous tissue
- b) Cartilage
- c) Bone
- d) Neuroectoderm

13. Histological features of benign tumors include

- a) Have abnormal frequent mitoses
- b) Show little evidence of normal function
- c) Have little resemblance of the original cell
- d) Mimic the structure of their original parental cell

14. Commonest sites of liposarcomas include

- a) Deep soft tissue of limbs
- b) Retroperitoneum
- c) Viscera
- d) Subcutaneous tissue of shoulders arms and buttocks

15. Sarcomas

- a) Have ill-defined edges
- b) Naked eye appearance suggests that they are well encapsulated but histology disproves this
- c) Malignant cells do not infiltrate between the normal tissues

d) Do not recur after excision

**PART B: TRUE OR FALSE: PENALTY OF ONE MARK FOR A WRONG CHOICE AND NONE FOR NO RESPONSE**

1. Mechanisms by which pathogens causes diseases are

a) Pathogen- cell contact directly                      b) Release of toxins              c) Induction of systemic inflammatory response

d) Obstruction of damage of blood vessels                      e) Induction of CMI

2 Local lesions caused by staphylococcus qureus are

a) Pustules                      b) Boils                      c) Carbuncles

d) Pharyngitis                      e) Wound infection

3. Complications of N. gonorrhoea in females include

a) Cervicitis                      b) Oophoritis                      c) Acute salpingitis

d) Infertility                      e) Urine retention

4. Enzyms produced by staphylococcus qureus are

a) Streptokinase                      b) Hyaluronidase                      c) Leucocidlia

d) Exotoxin                      e) Coagulase

5 Clinical features of E.coli 0157 due to Haemolytic uraemic syndrome are

a) Haemolytic anemia              b) Hypertension              c) Renal failure

d) Thrombocytopenic Purpura may occur              e) Death in young and elderly may occur

6 Prediposing factors to candidiasis include

a) Diabetes mellitus              b) Steroids                      c) Pregnancy

d) HIV/AIDS                      e) leukaemia

7. Risks factors for PTB are

a) HIV/AIDS                      b) D.M                      c) Elderly

d) Malnutrition                      e) poverty

8. Histological glandular tissue carcinomas include

a) Adenocarcinoma              b) Muroid carcinoma                      c) Pleomorphic cell carcinoma

d) Colonic carcinoma                      e) Cancer of breast

9. About sarcoma

a) Majority consist of spindle shaped cells.

b) Are associated with formation of large thin walled blood vessels.

c) Blood borne metastases to lungs is common

d) A few are of round cells

e) Spread via lymphatics is rare

10. Causes of anaemia in visceral leishmaniasis include

a) Splenomegaly with hypersplenism    b) Depressed bone marrow function

c) Autoimmune haemolysis    d) Ineffective erythropoiesis    e) G.I.T  
haemorrhage

11. Features of kala-azar include

a) Weight loss    b) High grade fever    c) Hepatosplenomegaly

d) Lymphadenopathy    e) anaemia

12. Complications of congenital toxoplasmosis in second trimester of pregnancy include

a) Moderate brain damage    b) Epilepsy    c) Chorioretinitis

d) Microcephaly    e) Encephalitis

13. Complication of *S. haematobium* are

a) Cystitis    b) Renal failure    c) Squamous cell carcinoma of  
bladder

d) Haemospermia    e) portal hypertension

14. Hyper infection due to impaired immunity strongly leishmaniasis presents with

a) Multi-organ failure    b) Acute pneumonia    c) Fulminant diarrhea

d) Septic shock    e) Meningitis

15. Causes of pyrexia in infections include

a) Resetting of to regulating centre in hypothalamus due to pyrogens

b) heat stroke    c) infarction    d) Cerebral disease in the region of pons

e) tumours.