

KISII UNIVERSITY SPECIAL/SUPPLEMENTARY EXAMINATIONS

CLMS 0122: GENERAL PATHOLOGY

PART 1

SECTION A: SEVEN SHORT ESSAY QUESTIONS: EACH HAS 10MARKS

ANSWER ALL

1. Define the following terminologies

- a) Disease (1mark)
- b) Infection (1mark)
- c) Physiological ageing (1mark)
- d) Histology (1mark)
- e) Haematology (1mark)
- f) Autopsy (1mark)
- g) Autoimmunity (1mark)
- h) Chemical pathology (1mark)
- i) Microbiology (1mark)
- j) Pathology

2. Outline

- a) Three functions of plasma membrane (3marks)
- b) Two functions of nucleus (2marks)
- c) Two functions of nuclear membrane (2marks)
- d) Three effects due to minimal damage to germs cell DNA (3marks)

3. Mention

- a) Five causes of nutritional disorders responsible for causation of a disease (5marks)
- b) Five causes of bone marrow depression resulting in agranulo cytosis and neutropenia (5marks)

4. Outline clinical features of Cushing's syndrome (10marks)

5. Outline

- a) Eight characteristics of communicable disease (8marks)
- b) Two functions of a chromosomes (2marks)

6. a) discuss the structure of a gene (5marks)

b) Mention five classes of genetic disorders (5marks)

7. Outline

a) Five causes of non-disjunction of genetic disorders (5marks)

b) Five examples of aneuploidies (5marks)

SECTION B: THREE LONG ESSAY QUESTIONS EACH HAS 15MARKS, ANSWER ONLY TWO QUESTIONS

1. Discuss

a) Protein synthesis during the processes of transcription splicing and translation (10 marks)

b) Five cardinal signs of acute inflammation (5marks)

2. Outline

a) Five causes of acute inflammation (5 marks)

b) Discuss vascular phase of acute inflammation (10marks)

3. a) discuss causes of chronic inflammation (10marks)

b) Outline 5 complications of wound healing (5marks)

PART 2: IS COMPOSED OF MCQ'S AND TRUE OR FALSE QUESTIONS

SECTION A MCQ: ONLY ONE CHOICE IS CORRECT

1. Systemic effects of chronic inflammation are

- a) High grade fever
- b) Gain of weight
- c) Diuresis
- d) Amyloidosis

2. Causes of acute inflammation are

- a) Amyloidosis

b) Hydropic swelling

c) Gas gangrene

d) Necrosis

3. Immunoglobulin G (IgG)

a) Is light chain Ig

b) Is a dimer molecule

c) Is the least abundant Ig

d) Neutralizes viruses and toxins

4. Beneficial effects of acute inflammation include

a) Digestion of adjacent tissues

b) Local swelling of hollow viscus

c) Increased vascular permeability causing shock

d) Protective mechanism by producing phagocytes out the injury site

5. Examples of disease caused by type 3 immune complex reactions are

a) Autoimmune hemolytic anaemia

b) Haemolytic disease of newborn

c) Leucopenia with agranulocytosis

d) Good pasture's disease

6. Labile cells include

a) Liver cells

b) Renal cells

c) Adrenal gland cells

d) Gut lining cells

7) The following disease occur due to autosomal dominant inheritance

- A) Phenylketonuria
 - b) Congenital deafness
 - c) Adrenogenital syndrome
 - d) Neurofibromatosis
8. x-linked disorders include
- a) Xeroderma pigmentation
 - b) Sickle cell anaemia
 - c) Haemochromatosis
 - d) Haemophilia types A and B
9. Activated complement system by three pathways yields the following
- a) Membrane attack complex (MAC)
 - b) Anaphylatoxins c3a, c3b, c5b, c6
 - c) Bradykinin
 - d) Fibrin degradation products
10. Microscopic features of supernatant fluid (inflammatory exudate) include
- a) Pigments of cell globules of fat
 - b) Bacteria
 - c) Living and dead neutrophils
 - d) Inflammatory exudate containing proteins and products of protein break down
11. Polyploidy's chromosomal disorders
- a) Occur when the number of chromosomes is either increased or reduced by one chromosome
 - b) Are usually seen in atrophied muscle cells
 - c) Occur during ovulation
 - d) Are incompatible with life

12. Organisms causing suppuration are

- a) Staphylococcus aureus
- b) B-haemolytic streptococcus
- c) Clostridium tetani
- d) Hemophilus influenza type B

13. about features of chromosomes

- a) Long arm is designated with letter “p”
- b) Short arm is designated with letter “q”
- c) Terminal ends are called centromeres
- d) They have banded pattern

14. Mitochondrial disorders include

- a) Congenital club foot
- b) Hypertension
- c) Sickle cell disease
- d) Leber’s hereditary optic neuropathy

15. The following are protozoal organisms

- a) Ascaris lumbricoides
- b) Echinococcus granulosus
- c) Toxoplasma gondii
- d) Malaria parasites

SECTION B: TRUE OR FALSE

RESPOND WITH LETTER ‘T’ FOR TRUE AND ‘F’ FOR FALSE CHOICE

YOU WILL BE PENALISED ONE MARK FOR A WRONGRESPONSE AND NONE FOR NO RESPONSE

1. Advantages of acute inflammation are

- a) Dilution of toxins by oedema fluid.
- b) Production of antibodies at the injured site for protective mechanism
- c) Deposition of fibrin at the injured site to limit spread of infection
- d) Useful in healing process by producing GF’S

- e) Increased vascular permeability
2. Actions of histamines include
- a) Increased vascular permeability
 - b) Vasodilation
 - c) Itching and pain
 - d) Platelet activation
 - e) Stimulates lymphocytes proliferation
3. Actions of activated complement system in inflammation include
- a) Increased vascular permeability
 - b) Anaphylatoxins c3a and c5a augments phagocytosis
 - c) C3a and c5a are both chemotactic agents for neutrophils and monocytes
 - d) Activated MAC is a lipid dissolving agent hence killing bacteria by lysis
 - e) Is a potent bronchodilator
4. Causes of deletions of chromosomes are
- a) Spontaneous chromosomal breakage
 - b) Mutagenic chemicals
 - c) Ionizing radiations
 - d) Parental translocation
 - e) Viral infection
5. Multifactorial disorders include
- a) I.D.D.M
 - b) Atopic eczema
 - c) Hypertension
 - d) Maniac depression
 - e) Dorminant blindness

6. Clinical features of Di George II syndrome are

- a) Hypertelorism
- b) Facial dysmorphism
- c) Syndactyl
- d) Epicanthic folds
- e) Growth retardation

7. Features of chronic inflammation are

- a) Presence of neutrophil polymorphs
- b) Abscess formation
- c) Marked oedema
- d) Increased vascularity
- e) Minimal or no fibrosis

8. Sequelae of acute inflammation are

- a) Chronic inflammation
- b) Abscess formation
- c) Repair and organization
- d) No resolution
- e) Healing by fibrosis and scarring

9. Systematic factors that delay wound healing are

- a) Infections
- b) Presence of foreign bodies
- c) Ischaemia
- d) Excessive movements
- e) Protein deficiency

10. Luminal causes of intestinal obstruction are

- a) Gall stones
- b) Faecolith impaction
- c) Inflammatory strictures
- d) Tumours
- e) Heavy worm infestations especially ascaris

11. The following are examples of deletions

- a) A ring chromosome
- b) cri-du-chat syndrome
- c) Wilms tumour
- d) Retinoblastoma
- e) Di George syndrome I

12. The following are metabolic disorders

- a) Cystic fibrosis
- b) Phenyl ketonuria
- c) Glycogen storage disorder
- d) Mucopolysaccharidoses
- e) Aminoaciduria

13. Functions of macrophages are

- a) Phagocytosis
- b) Intracellular bacteria killing
- c) Formation of granulomas to kill resistant bacteria
- d) Release potent proteolytic enzymes
- e) Influence repair mechanism by producing GF'S

14. Types of extracellular matrix (ECM) are

- a) Collagen
- b) Amino acids
- c) Proteoglycan
- d) Glycoproteins
- e) Elastin

15. Causes of hypoxia are

- a) Ischaemia
- b) Anaemia
- c) Cyanide
- d) Radiation
- e) Cardiovascular diseases

