



**KENYA MEDICAL TRAINING COLLEGE
FACULTY OF CLINICAL SCIENCES
DEPARTMENT OF CLINICAL MEDICINE**

**FINAL QUALIFYING EXAMINATION
FOR
DIPLOMA IN CLINICAL MEDICINE AND SURGERY**

PAPER: MEDICINE

DATE: 27th July, 2021

TIME: 3 HOURS (9:00AM – 12:00 NOON)

INSTRUCTIONS

1. This paper consists of:
 - Section 1 (40 Multiple Choice Questions)
 - Section 2 (3 Short Answer Questions)
 - Section 3 (1 Long Answer Question)
2. Attempt **ALL** Questions
3. Write the **EXAMINATION NUMBER** given on all the answer sheets provided and on the question paper.
4. Ensure that all examination answer scripts are handed in at the end of the examination
5. Ensure you sign the examination register provided

EXAMINATION NUMBER

MEDICINE**SECTION 1: MULTIPLE CHOICE QUESTIONS - (40MARKS)**

1. One of the following is a non-modifiable risk for hypertension.
 - a) Obesity.
 - b) Hypertension in first degree relative.
 - c) Sedentary lifestyle.
 - d) Acute Kidney Injury.
2. About antibiotics and pneumonias, which one is incorrect
 - a) Preferred treatment is with Ampicillin
 - b) Atypical pneumonia should be treated for not less than 14 days
 - c) Add anaerobic antibiotics if suspected aspiration
 - d) Levotraxacin can be an alternative for Erythromycin
3. In Broncho pneumonia which is true?
 - a) There is consolidation in one lobe
 - b) There is widespread patchy infection
 - c) Common in adolescence age
 - d) Neutrophil leucocytosis is not present
4. The most useful tool for evaluation of the condition of a patient with an acute asthmatic attack and in assessing the response to therapy is;
 - a) Chest radiography
 - b) Arterial blood gas measurement
 - c) Measurement of pulsus paradoxus
 - d) Measurement of peak expiratory flow or FEV1
5. Concerning asthma;
 - a) Refers to inflammation of the airway.
 - b) Is hyper irritability of the airway.
 - c) Smoking is a known aetiology.
 - d) Age is a risk factor.
6. The development of pyothorax (pyogenic pleural effusion) is commonly associated with;
 - a) Streptococcal pneumonia
 - b) Staphylococcal pneumonia
 - c) Mycobacterium tuberculosis
 - d) Mycoplasma pneumonia
7. Persons in direct contact with patients of bacteriologically confirmed TB have been found to benefit from chemoprophylaxis involving;
 - a) Broad spectrum antibiotics.
 - b) Augementin Caplets for 5 days.
 - c) Isoniazide prophylaxis.
 - d) No chemoprophylaxis is necessary unless TB is confirmed in the exposed person.

8. Young asthmatic male in emergency department. Resp rate 26/min, pCO₂ 27, SAO₂ 92%, struggling, talking in sentences. Given nebulised salbutamol, and ipratropium, 200mg IV hydrocortisone. After 30 minutes - no improvement. Further management: (NEXT step involve);
- IV salbutamol
 - IV aminophylline
 - IV magnesium sulphate
 - Intubate and ventilate
9. Infective endocarditis
- May follow a tooth extraction
 - I.V drug user are not at risk
 - A ten-day oral treatment is adequate for treatment
 - Modified John's criteria is used in Diagnosis
10. A patient visited a hospital and the following investigations were done on separate occasions. Which values would imply prediabetes?
- RBS >11.1mmol/dl
 - HbA1C >7.5 %
 - FBS 4.0mmol/dl
 - RBS 5.0mmol/dl
11. The most sensitive diagnostic imaging for STROKE secondary to intracranial hemorrhage is;
- Cranial- MRI
 - Cranial- CT scan
 - Skull X-ray
 - Full hemogram as it shows reduced HB
12. Which of the following investigations is least necessary in diagnosis of acute bacterial meningitis?
- Complete Blood Count
 - Serum crag test
 - Lumbar Puncture
 - Blood culture
13. One of the following organisms is commonly implicated in causation of community acquired pneumonia;
- Streptococcus pneumonia
 - Mycoplasma
 - Pneumococci
 - Hemophilus influenza
14. A known HIV patient diagnosed with Pulmonary TB belongs to WHO stage
- I
 - II
 - III
 - IV

15. The investigation that is confirmatory of visceral leishmaniasis (kala-azar)
- FHG-shows pancytopenia
 - Demonstrations of leishmania Donovan bodies in blood smears
 - Urinalysis shows haematuria
 - False positive typhoid test
16. The following drug is the first line treatment for severe/complicated malaria;
- Artemether Lumefantrine combination.
 - Duocotexin (DHA/PPQ).
 - Parenteral artesunate.
 - Parenteral Quinine.
17. The gold standard diagnostic test for malarial infection include;
- Malaria rapid diagnostic test.
 - Duffy coat antigen test.
 - Malaria Parasite DNA PCR.
 - Blood slide microscopy.
18. The following is a feature of iron deficiency anaemia;
- Normocytic hypochromic erythrocytes.
 - Normocytic normochromic erythrocytes.
 - Microcytic hypochromic erythrocytes.
 - Microcytic normochromic erythrocytes.
19. The following is a diagnostic test for sickle cell disease;
- Sickling test.
 - Hb electrophoresis.
 - Peripheral blood film.
 - Full haemogram test.
20. The following drug has no role in malaria chemoprophylaxis;
- Duocotexin.
 - Cotrimoxazole.
 - Sulphadoxine Pyrimethamine (SP) combination.
 - Carboxypenicillin.
21. Which of the following is not part of the goals in DKA management?
- Correction of dehydration ✓
 - Correction of acidosis ✓
 - Identify and treat the precipitating factors ✓
 - Correct hyperglycemia to 4mmol/l to avoid further complications
22. In hemolytic jaundice, there is.
- Pale stool
 - Pale conjunctival mucous membranes
 - Itching and scratching of the skin ✓
 - Malaria infection is not a cause ✓
23. In modified Jones Criteria, major features include;
- Elevated acute phase reactants
 - Fever

- c) Carditis.
 - d) Arthralgia
24. Features of heart failure.
- a) Unilateral pedal pitting oedema.
 - b) Elevated jugular venous pressure.
 - c) Hypertension
 - d) Acute wasting
25. The following is TRUE on hypertension;
- a) Secondary hypertension is the most prevalent in >95% of cases.
 - b) Essential Hypertension is rare.
 - c) JNC 7 is the latest classification of hypertension.
 - d) Obesity is a modifiable risk factor.
26. Which of the following correctly defines hypertensive emergency?
- a) Systolic >180mmHg , diastolic >120mmHg.
 - b) Systolic >180mmHg , diastolic >120mmHg with impending end organ damage.
 - c) Systolic >180mmHg , diastolic >140mmHg.
 - d) Systolic <180mmHg , diastolic >140mmHg with impending end organ damage.
27. Antiplatelet therapy in Venous thromboembolism
- a) Ascard (Cardiac aspirin).
 - b) Diclofenac.
 - c) Warfarin.
 - d) Heparin.
28. Risk factors of co-pulmonale.
- a) Pneumoconiosis.
 - b) Pneumonia.
 - c) Pulmonary TB
 - d) Congestive heart failure
29. First line treatment of Urinary Tract Infection;
- a) Sulphonamides e.g Cotrimoxazole.
 - b) Penicillins e.g. Amoxil.
 - c) Fluoroquinolones e.g Ciprofloxacin.
 - d) Doxycycline.
30. The following is a physiological diabetogenic state.
- a) Pregnancy.
 - b) Septicaemia.
 - c) Malaria infection.
 - d) Pancreatitis.
31. Which of the following is considered a 'broad spectrum antibiotic' in STI Syndromic treatment ?
- a) Ciprofloxacin.
 - b) Ceftriaxone.
 - c) Doxycycline.
 - d) Cefalexin.

32. Common indications of upper GI endoscopy include all of the following except
- Dyspepsia despite treatment
 - Diarrhoea
 - Refractory vomiting
 - Dysphagia
33. The following is a lower GIT ulcerative disorder.
- Duodenal ulcer.
 - Zolinger Ellison syndrome.
 - Gastric ulcer.
 - Crohns disease.
34. Pathophysiology of organophosphate poisons:
- inhibit the activity of phosphorylase
 - inhibit the activity of acetylcholinesterase
 - inhibit the activity of malate dehydrogenase
 - stimulate the activity of pseudo cholinesterase.
35. Which of the following intestinal helminth will present with proglottids
- echinococcosis (hydatid disease)
 - taeniasis (beef tapeworm infection)
 - hymenolepidosis (dwarf tapeworm infection)
 - toxoplasmosis
36. Pandemic Viral Haemorrhagic Fevers.
- Marburg.
 - Yellow fever.
 - Sialadenitis.
 - Ebola Viral Disease
37. The following is associated with increased mortality risk in COVID -19 disease.
- Young age.
 - Diabetes mellitus.
 - Frequent travel.
 - Overcrowding
38. The following is considered the origin of COVID-19 Pandemic.
- Wuhan China.
 - Shanghai China.
 - Tokyo-Japan.
 - Italy.
39. The following is a hypercoagulability state;
- Sickle cell disease.
 - Haemophilia.
 - Von Willebrand disease.
 - Anaemia
40. Cause of vitiligo is
- Streptococcus viridians
 - Autoimmunity

- c) Staphylococcus aureus
- d) HACECK group of organisms

SECTION 2: SHORT ANSWER QUESTIONS - (40 MARKS)

1. Concerning malaria;
 - a. State any 2 clinical features. (2marks)
 - b. State 2 methods of diagnosis commonly used. (2marks)
 - c. State 2 drugs used In the treatment of uncomplicated malaria. (2marks)
 - d. List any 4 causes of hypoglycaemia in a patient diagnosed with severe malaria. (4marks)

2. Concerning COVID -19 respiratory disease;
 - a. List any 4 clinical features; (4marks)
 - b. List 3 effective prevention modalities; (3marks)
 - c. Identify 1 effective international intervention currently underway to curb COVID-19 infection; (1mark)
 - d. List 2 complications associated with COVID-19 infection; (2marks)

3. A 36 years old dyspnoeic male patient presents at the OPD clinic with a productive cough and right sided chest pain which had lasted for two days.
 - a. State 4 differential diagnoses (4marks)
 - b. State any 4 investigations you would order for the patient (4marks)
 - c. State the clinical classification of pneumonia (4marks)
 - d. State any four common oral antibiotics for the management of Community acquired pneumonia. (4marks)
 - e. List 4 main drugs used in the treatment of TB. (4marks)

SECTION 3: LONG ANSWER QUESTION - (20MKS)

1. A 27-year-old patient is brought to the emergency department with the following presentation.
 - i. Patient is unconscious with cold extremities.
 - ii. Noted to be in an adult diaper, reported to have had several bouts of watery diarrhoea for the last 45 minutes with a sunken orbital fossa with skin turgor delayed at 2seconds on skin pinch test.
 - iii. Several family members accompanying him reports abdominal pain and two have had an episode of vomiting.

Discuss the management of this patient.

(20 marks)