



**KENYA MEDICAL TRAINING COLLEGE**  
**FACULTY OF NURSING PROMOTIONAL EXAMINATION**

**PERIOD : END OF YEAR ONE SEMESTER 2**

**CLASS : KRCHN (B) SEPTEMBER 2017**

**PAPER : PAPER THREE. (3)**

**SUBJECT : PHARMACOLOGY (SUPPLEMENTARY)**

**DATE: WEDNESDAY, 12<sup>TH</sup> SEPTEMBER 2018    TIME: 3 HOURS (8.30AM-11.30AM)**

**INSTRUCTIONS TO THE CANDIDATES**

1. ENTER YOUR EXAMINATION NUMBER on every sheet of paper used
2. READ THE QUESTION carefully and answer only WHAT IS ASKED
3. FOR MULTIPLE CHOICE QUESTIONS write the correct answer in CAPITAL LETTERS
4. FOR SHORT ANSWER THE QUESTIONS, follow the instructions given by the invigilator
5. FOR LONG ANSWER QUESTIONS, answer each question on a separate sheet of paper
6. Omission of/and or wrong numbering of question or part of question will result in 10% deduction of the marks scored from the relevant part

**Note:**

- a) Mobile phones and WATCHES are **NOT** allowed in the exam room
- b) All candidates must "sign in" while handing in their scripts.

**PART I: MULTIPLE CHOICE QUESTIONS (MCQs) (20 MARKS)**

1. **The drugs that are classified as Cephalosporins include:**
  - a) Cefixime, Loracarbef
  - b) Cephradine, Laroxyl
  - c) Cephtraixone, Lasix
  - d) Cefaclor, Clonazepam
  
2. **The antitussive agents are indicated to:**
  - a) Remove secretions.
  - b) Relieve rhinitis.
  - c) Control productive cough.
  - d) Relieve a dry cough.
  
3. **The nurse should instruct a client who is taking an expectorant to:**
  - a) Restrict fluids
  - b) Increase fluid intake
  - c) Avoid vaporizers.
  - d) Take antihistamine.
  
4. **The drugs that are classified as narcotic analgesics include:**
  - a) Acetylsalicylic acid, Indomethacin
  - b) Acetaminophen, Ibuprofen
  - c) Codeine, Morphine
  - d) Morphine, Diclofenac
  
5. **The action of hypnotic drugs is to induce:**
  - a) vomiting
  - b) appetite
  - c) sleep
  - d) calmness
  
6. **The antidote for morphine toxicity is**
  - a) Methadone
  - b) Fentanyl
  - c) Amphetamine
  - d) Naloxone
  
7. **The extent to which the drug is absorbed and transported to the target tissue is known as:-**
  - a) Steady-state accumulation.
  - b) Therapeutic-drug-level
  - c) Bioavailability.
  - d) Distribution.

**8. The actions of the body on the drug are referred to as:**

- a) Pharmacodynamics
- b) Pharmacokinetics
- c) Pharmacognosy
- d) Pharmacogenomics

**9. Mannitol is classified as:-**

- a) Potassium diuretics
- b) Loop diuretics
- c) Osmotic diuretics
- d) Potassium sparing diuretics

**10. The drug that increases blood sugar by stimulating glycogenolysis in the liver is:**

- a) Glimpride
- b) Glyburide
- c) Miglitol
- d) Glucagon

**11. Atenolol is a:-**

- a) Beta-2 agonist.
- b) Beta blocker.
- c) ACE-inhibitor
- d) Calcium blocker.

**12. The drugs that are classified as Penicillin include:**

- a) Methicillin Sodium, Nafcillin Sodium
- b) Penicillin V, Ciprofloxacin
- c) Ampicillin, Doxycycline
- d) Erythromycin, Sotalol

**13. The major signs of digitalis toxicity include:**

- a) Cardiac arrhythmias
- b) Paraesthesia
- c) Excessive slowing pulse rate
- d) Generalised muscle weakness

**14. Diclofenac Sodium produces anti-inflammatory, analgesic and antipyretic effects possibly by inhibiting the synthesis of:**

- a) Dopamine
- b) Prostaglandin
- c) Serotonin
- d) Monoamine-oxidase

**15. The antiulcer agents include:**

- a) Cimetidine, Laroxyl
- b) Omeprazole, Tramadol
- c) Famotidine, Sucralfate
- d) Praziquantel, Ranitidine Hydrochloride



**PART II:- SHORT ANSWER QUESTIONS (SAQ) (40MARKS)**

1. Explain three ( 3) factors that affect drug metabolism (6 Marks)
2. States even (7) principles of drug administration (7 marks)
3. State four classes of drugs used in management of peptic ulcer disease (4 marks)
4. Outline four (4) major aspects to consider under pharmacokinetics as a therapist nurse (4 marks)
5. List six (6) side-effects of opioids analgesics (3 Marks)
6. Outline the stock control procedure of drugs in a hospital ward (6 marks)
7. State five (5) factors that contribute to resistance to certain drugs in some patients (5 marks)
8. State the five(5) rights of drug administration (5marks)

**PART III:- ESSAY/LONG ANSWER QUESTION (LAQ) (40MARKS).**

1. Mrs Pal aged 28 years is admitted to the medical ward presenting with malaria and is consequently initiated on treatment with Quinine.
  - a) Explain the mode of action of Quinine (5 marks)
  - b) State five (5) side effects that Mrs Pal is likely to develop (5 marks)
  - c) Describe the nursing interventions that you will implement while providing care to Mrs Pal until the condition improves (10 marks)
2. Explain 10 factors that lead to non – compliance of drugs by patients (20 Marks).





**KENYA MEDICAL TRAINING COLLEGE  
FACULTY OF NURSING PROMOTIONAL EXAMINATION  
(Supplementary)**

**PERIOD : END OF YEAR ONE, SEMESTER TWO**  
**CLASS : MARCH 2018 KRCHN (B) CLASS**  
**PAPER : PAPER FIVE (5)**  
**SUBJECT : PHARMACOLOGY**

**DATE: 3<sup>ND</sup> MAY, 2019**

**TIME: 3 HOURS (8.30AM – 11.30AM)**

**INSTRUCTIONS TO THE CANDIDATES:**

1. ENTER YOUR EXAMINATION NUMBER on every sheet of paper used
2. READ THE QUESTIONS carefully and answer only what is asked.
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5. For LONG ANSWER QUESTIONS, Answer each QUESTION on a separate sheet of paper
6. Omission of and/or wrong numbering of question or part of question will result in 10% deduction of marks scored from the relevant part

**Note:**

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**PART I: MULTIPLE CHOICE QUESTIONS (MCQ's)****(20 MARKS)**

- 1. The drugs that are classified as Cephalosporins include:**
    - a. Cefixime, Loracarbef
    - b. Cephradine, Laroxyl
    - c. Cephtraixone, Lasix
    - d. Cefaclor, Clonazepam
  
  - 2. The major contraindication of Praziquantel is the use in patients with:**
    - a. hepatic dysfunction
    - b. ocular cysticercosis
    - c. lymphadenopathy
    - d. peptic ulcer disease
  
  - 3. The major side effects of Indomethacin on the cardiovascular system is:**
    - a. Venous thrombosis, bleeding
    - b. Angina pectoris, hypotension
    - c. Endocarditis, atrial fibrillation
    - d. Hypertension, oedema
  
  - 4. The drugs that are classified as narcotic analgesics include:**
    - a. Acetylsalicylic acid, Indomethacin
    - b. Acetaminophen, Ibuprofen
    - c. Codeine, Morphine
    - d. Morphine, Diclofenac
  
  - 5. The action of hypnotic drugs is to induce:**
    - a. vomiting
    - b. appetite
    - c. sleep
    - d. calmness
  
  - 6. The time that is required to reduce concentration of a drug in the body by one half is called:**
    - a. time course
    - b. time period
    - c. half life
    - d. half lifespan
  
  - 7. The drugs that are classified as Sulphonamides include:**
-



- a. Cotrimoxazole, Sulfamethoxazole, Sulfasalazine
- b. Sulfadiazine, Sulfisoxazole, Spironolactone
- c. Sulfinpyrazone, Sulfasalazine, Sulfamethoxazole
- d. Cefpodoxime Proxetil, Cotrimoxazole, Sulfadiazine

**8. The actions of the body on the drug are referred to as:**

- a. Pharmacodynamics
- b. Pharmacokinetics
- c. Pharmacognosy
- d. Pharmacogenomics

**9. The drugs that have almost exclusively harmful effects in the body are known as:**

- a. Elixirs
- b. Xenobiotics
- c. Toxins
- d. Poisons

**10. The possibility of harmful effects on the foetus during the formative stages of development is referred to as:**

- a. Tetralogy
- b. Teratogenicity
- c. Mutation
- d. Regeneration

**11. The mode of action of Nifedipine (Adalat) is that it:**

- a. Inhibits Calcium ion influx across cardiac and smooth muscle cells, decreasing myocardial contractility and oxygen demand
- b. Stabilizes neuronal membrane and limits seizure activity by either increasing efflux or decreasing influx of Sodium ions across cell membranes in the motor cortex during generation of nerve impulses
- c. Depresses monosynaptic and polysynaptic transmission in the CNS and increases their threshold for seizure activity in the motor cortex
- d. Increases the amount of Norepinephrine or Serotonin or both in the central nervous system by blocking their re-uptake by the pre-synaptic neurons

**12. The drugs that are classified as Penicillin include:**



- a. Methicillin Sodium, Nafcillin Sodium
- b. Penicillin V, Ciprofloxacin
- c. Ampicillin, Doxycycline
- d. Erythromycin, Sotalol

**13. The major signs of digitalis toxicity include:**

- a. cardiac arrhythmias
- b. paraesthesia
- c. excessive slowing of the pulse rate (60 beats or less per minute)
- d. generalised muscle weakness

**14. Diclofenac Sodium produces anti-inflammatory, analgesic and antipyretic effects possibly by inhibiting the synthesis of:**

- a. Dopamine
- b. Prostaglandin
- c. Serotonin
- d. Monoamine oxidase

**15. The antiulcer agents include:**

- a. Cimetidine, Ranitidine
- b. Omeprazole, Tramadol
- c. Famotidine, Sucralfate
- d. Praziquantel, Ranitidine Hydrochloride

**16. The mode of action of Salbutamol sulphate is that it:**

- a. inhibits Phosphodiesterase enzyme activity resulting in relaxation of smooth muscle of the bronchial airways and pulmonary blood vessels
- b. relaxes bronchial and uterine smooth muscle by acting on beta Adrenergic receptors
- c. stimulates alpha and beta Adrenergic receptors within the sympathetic nervous system
- d. inhibits vagally mediated reflexes by antagonising Acetylcholine

**17. The anti-anxiety agents include:**

- a. Aminophylline, Halazepam
- b. Ranitidine, Buspirone
- c. Meprobamate, Chlordiazepoxide
- d. Parazepam, Simethicone

**18. The component of a cell or organism that interacts with a drug and initiates the chain of events leading to the drug's observed effects is called:**

- a. an agonist
- b. an antagonist
- c. an effector
- d. a receptor

**19. The drugs that are classified as diuretics include:**

- a. Mannitol, Acetazolamide
- b. Chlorothiazide, Digoxin
- c. Theophylline, Butetamide
- d. Furosemide, Amytal

**20. The mode of action of Gentamycin Sulphate is:**

- a. Inhibition of bacterial wall synthesis
- b. Inhibition of protein synthesis
- c. Inhibition of DNA synthesis
- d. Inhibiting dihydrofolic acid reductase

**PART II: Short Answer Questions(SAQs)**

**40 MARKS**

1. State five factors that affect drug bioavailability
2. Discuss Erythromycin under the following headings;

**(5 marks)**

1. Bioavailability (5 marks)  
2. classify erythromycin

KMTC/QP-08/T15

- a. Classification (1 mark)
- b. Mechanism of action (2 marks)
- c. State two indications (2 marks)
- d. State two side effects (2 marks)
3. Outline six clinical uses of benzodiazepines (6 marks)
4. Outline four (4) major aspects to consider under pharmacokinetics as a therapist nurse (4 marks)
5. State five factors to consider when deciding on a route of drug administration (5 marks)
6. State six (6) common side effects of anticancer drugs (6 marks)
7. State five (5) factors that contribute to resistance to certain drugs in some patients (5 marks)
8. List six (6) first line anti-TB drugs (3 marks)

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**Part III: Long Answer Question (LAQs)**

**40 MARKS**

Q1. Mrs Pal aged 28 years is diagnosed with HIV/AIDS in the outpatient clinical of Tembe safi hospital.

- a) State Five classes of antiretroviral drugs giving mechanism of action of each class (10 marks)
- b) State five (5) side effects that Mrs Pal is likely to develop (5 marks)
- c) outline five (5) health messages you will share with Mrs Pal on drugs (5 marks)

2. Mr Sha aged 40 years is admitted to the medical ward presenting with intestinal amoebiasis and is commenced on Metronidazole treatment.

- a) State five (5) indications of Metronidazole (5 marks)
- b) State three (3) contraindications to the administration of Metronidazole (3 marks)
- c) State five (5) side effects that Mr Sha is likely to develop (5 marks)
- d) Describe the nursing interventions that you will implement for care to Mr Sha while undergoing treatment (7 marks)





**KENYA MEDICAL TRAINING COLLEGE  
FACULTY OF NURSING PROMOTIONAL EXAMINATION  
FOR  
KENYA REGISTERED COMMUNITY HEALTH NURSING (B)**

**PERIOD : END OF YEAR 1, SEMESTER 2**  
**CLASS : SEPTEMBER 2018**  
**PAPER : PAPER SEVEN (7)**  
**SUBJECT : PHARMACOLOGY**

**DATE: 19<sup>TH</sup> JULY 2019**

**TIME: 3 HOURS (8.30 AM – 11.30 AM)**

**INSTRUCTIONS TO THE CANDIDATES:**

1. ENTER YOUR EXAMINATION NUMBER on every sheet of paper used
2. ANSWER QUESTIONS IN EACH PART FOLLOWING EACH OTHER
3. For MULTIPLE CHOICE QUESTIONS write the correct answer in CAPITAL LETTERS

**Note**

- a) **MOBILE PHONES AND SMART WATCHES** are not allowed in the exam room
  - b) **All candidates must "sign in" the register provided while handing in their scripts**
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**SECTION I - MULTIPLE CHOICE QUESTIONS (MCQs)**

1. **The following drugs are bronchodilators:**
  - a) Aminophylline, Nifedipine
  - b) Theophylline, Amiloride
  - c) Amoline, Aminophylline
  - d) Amiloride, Amitriptyline
  
2. **Naloxone is the drug of choice for narcotic toxicity because it:**
  - a) Exerts both antagonist and agonist activity
  - b) Is pure narcotic antagonist with no agonistic activity
  - c) Is effective in treatment of respiratory depression caused by other central nervous system depressants
  - d) Has no narcotic action
  
3. **The common side effects of antihistamines include:**
  - a) Sedation, Dizziness, Dry mouth
  - b) Tremors, Fatigue, Urticarial
  - c) Convulsions, Gastro-intestinal disturbance, Insomnia
  - d) Insomnia, Urticarial, Dry mouth
  
4. **Cephalosporins drugs include:**
  - a) Cefotaxime sodium, Precef, Cefotan
  - b) Cefotan, Cefoxitin sodium, Carbinoxamine
  - c) Ceftrizoxime sodium, Zefuroxime, Carbamazepine
  - d) Cephalexine, Cephhradine, Carmustine
  
5. **The most appropriate route of drug administration in emergency situation is:**
  - a) Intramuscular injection
  - b) Intravenous injection
  - c) Oral administration
  - d) Per recta
  
6. **Suboptimal use of drug may lead to treatment failure due to:**
  - a) Too small dose, Late treatment
  - b) Unstable route, Too long interval between doses
  - c) Unsuitable route, High incidence of drug reactions
  - d) Duration of course too short, Dose too small
  
7. **One of the nursing intervention for a patient on Nifedipine is:**
  - a) Teach client on dosage of drug
  - b) Monitor blood pressure of patient
  - c) Establish safety precautions
  - d) Increase drug



8. **Beta-adrenergic blocking agents (biselective) include:**
- Nifedipine, Amoladipine
  - Atenolol, Acebutollol hydrochloride (spectral)
  - Captopril, Enalapril
  - Labetalol, Prazosin
9. **Indications of captopril include:**
- Hypertension, Hypotension, Rheumatoid arthritis
  - Hypertension, Congestive heart failure, Hypotension
  - Hypotension, Hypertensive crisis, Proteinuria
  - Hypertension, Hypertensive crisis, Congestive heart failure
10. **The therapeutic action of amoxicillin is:**
- Bactericidal, Inhibit protein synthesis
  - Inhibits synthesis of bacterial cell wall, Binds to sterols
  - Bactericidal, Inhibits cell wall synthesis
  - Inhibits synthesis of cell wall, Binds to sterols
11. **The following drugs are therapeutic coagulants:**
- Heparin, Coumarin derivatives
  - Coumarin derivatives, Vitamin K
  - Indadione derivatives, Phytomenadione
  - Phytonadione, Phytomenadione
12. **An example of a potassium sparing diuretic is:**
- Frusemide
  - Thiazides
  - Spiroinolactone
  - Ethacrynic acid
13. **Some of the unwanted effects of thiazides include:**
- Thrombocytopenia, rashes
  - Agranulocytosis, paraesthesia
  - Thrombocytopenia, agranulocytosis
  - Paraesthesia, rashes
14. **Prazosin hydrochloride (Minipress) is classified as an**
- Antihypertensive, Alpha-adrenergic blocking drug
  - Alpha adrenergic blocking drug, Beta blocker
  - Beta blocker, Antihypertensive drug
  - Calcium channel blocker, Beta blocker
15. **Ventolin is a bronchodilator as well as**
- Inhaler
  - Beta-2 selective adrenergic agonist
  - Vasodilator
  - Beta-1 receptor



For questions 16 and 17 indicate whether the statements are true (T) or false (F) on the answer booklet provided

- 16.
- i. A nurse must take pulse rate before administration of digoxin \_\_\_\_\_
  - ii. Patient on digoxin should be weighed daily at the same time with same clothing \_\_\_\_\_
- 17.
- i. Occult blood loss is an adverse effect of non-steroidal anti-inflammatory drugs \_\_\_\_\_
  - ii. Labetalol is an alpha and beta blocker \_\_\_\_\_

For questions 18-20, match the statements in column A with that in column B.

18. COLUMN A

- a) Macrolide antibiotic \_\_\_\_\_
  - b) Aminoglycoside \_\_\_\_\_
- 19.
- a) Calcium channel blockers \_\_\_\_\_
  - b) Piriton (Chlorpheniramine maleate) \_\_\_\_\_
- 20.
- a) Diclofenac \_\_\_\_\_
  - b) First generation cephalosporin \_\_\_\_\_

COLUMN B

- 1. Cefadroxil
- 2. Non-steroidal anti-inflammatory drugs
- 3. Prototype antihistamine
- 4. Cardizem
- 5. Amikacin
- 6. Erythromycin
- 7. Cefamandole
- 8. Fludrocortisone acetate

*anti med*

0 2 2 2  
3 3 3 3

1. State six (6) causes of treatment failure (6 Marks)
2. State four (4) indications for combination of two or more antimicrobials (4 Marks)
3. Outline six (6) uses of morphine (6 Marks)
4. State five (5) principle actions of salicylates (5 Marks)
5. State five (5) indications for heparin (5 Marks)
6. Explain the five (5) rights of drug administration (5 Marks)
7. State five (5) advantages of calcium channel blockers (5 Marks)
8. State any four (4) classes of diuretics (4 Marks)

**SECTION III - LONG ANSWER QUESTIONS (LAQs)** (40 MARKS)

1. **Antibacterial drugs have been widely used in the management of various bacterial infections**
  - a) State six (6) classes of antibiotics giving an example in each class (6 Marks)
  - b) Outline six (6) indications for cephalosporins (6 Marks)
  - c) Explain health messages you would share with a patient on antibiotics (8 Marks)
  
2. **Mr Ping is admitted in medical ward with diagnosis of hypertension**
  - a) State five (5) target sites of antihypertensive drugs (5 Marks)
  - b) State five (5) classes of antihypertensive drugs , giving the mechanism of action of each (10 Marks)
  - c) State five (5) side effects of a patient on antihypertensive drugs is likely to experience (5 Marks)

Handwritten notes in red ink at the bottom left of the page, including a date "03/00/2017" and a number "039953/57".



Lecturer's copy

22/03/2019



KMTC/QP-08/TIS

**KENYA MEDICAL TRAINING COLLEGE  
FACULTY OF NURSING PROMOTIONAL EXAMINATION**

**PERIOD : END OF YEAR ONE, SEMESTER TWO**  
**CLASS : MARCH 2018 KRCHN(B) CLASS**  
**PAPER : PAPER FIVE (5)**  
**SUBJECT : PHARMACOLOGY**

**DATE: 14<sup>TH</sup> FEBRUARY 2019**

**TIME: 3 HOURS (8.30 AM – 11:30 AM)**

**INSTRUCTIONS TO THE CANDIDATES:**

1. ENTER YOUR EXAMINATION NUMBER on every sheet of paper used
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**Part I: Multiple choice questions (MCQs)****20 marks**

1. The effect of combining drugs where one drug which has no effect increases the effects of another drug is termed:

- a) Potentiation.
- b) Antagonism.
- c) Addition.
- d) Agonism.

2. Ipratropium bromide is:

- a) A cholinergic agent used for perennial rhinitis.
- b) An anticholinergic used for allergic rhinitis and colds.
- c) Only used in patients with asthma.
- d) Inappropriate for use in allergic rhinitis.

3. the route of drug administration with highest compliance from the patients is:

- a) intravenous
- b) intravenous
- c) oral
- d) intrathecal

4. A patient on anti-ulcer therapy complains of reduced libido and impotence. The nurse informs him that it may be associated with:

- a) Nizatidine
- b) Cimetidine
- c) Ranitidine
- d) Famotidine

5. Erythromycin exerts its antibacterial activity by:

- a) Inhibiting cell wall synthesis
- b) IDNA synthesis
- c) Increasing cell wall permeability
- d) Interfering with folic acid utilization

6. Bulk-forming laxatives:

- a) Function like dietary fiber.
- b) Act within 2 to 6 hours.
- c) Produce a semifluid stool.
- d) Are used to prepare the bowel for diagnostic procedures.

7. Praziquantel is the drug of choice in treatment of:

- a) Herpes simplex.
- b) fungal meningitis.
- c) round worms.
- d) Schistosomiasis.

8. The appropriate drug to give a patient with nausea after chemotherapy

- a) Loperamide
- b) Ranitidine
- c) Dronabinol
- d) Lorazepam

9. An azole derivative indicated for systemic fungal infection is:

- a) Miconazole
- b) Fluconazole
- c) Clotrimazole
- d) Amphotericin B

10. A nurse should administer Loperamide to a client who has:

- a) Abdominal pain
- b) Constipation
- c) Diarrhea
- d) Blood in stool

11. The following statement is true about antihypertensive drugs

- a) Angiotensin converting enzyme inhibitors are safe for use in the 2<sup>nd</sup> and 3<sup>rd</sup> trimesters of pregnancy.
- b) Angiotensin II inhibitors block conversion of Angiotensin I to Angiotensin II.
- c) Angiotensin II blockers are contraindicated in pregnancy.
- d) None of the above

12. 4- aminoquinolone derivates used in treatment of malaria includes:

- a) Quinine, artemesinin
- Free mark*  b) Chloroquine, pyrimethamine
- c) Hydrochloroquine, mefloquine
- d) Amodiaquine, sulfamethoxazole

*Armodiaquine Chloroquine  
- Hydrochloroquine*



13. Diazepam exerts its effects by:

- a) Binding on GABA receptors in the brain
- b) inhibiting serotonin action
- c) blocking acetylcholine on synaptic cleft
- d) increasing the influx of sodium on neurons

14. In a patient suffering from angina, nitroglycerin may be given sublingually because this mode of administration

- a) Bypasses the coronary circulation
- b) Causes less reflex tachycardia than oral administration
- c) Improves patient compliance
- d) Avoids first pass hepatic metabolism

15. The most appropriate drug for treatment of bacillary dysentery in adults is:

- a) Ciprofloxacin
- b) Amoxicillin
- c) Erythromycin
- d) Gentamycin

16. Commonest side effect associated with morphine is:

- a) Development of Gastric ulcers
- b) Nausea and vomiting
- c) Constipation
- d) Tachypnea

17. Highly active antiretroviral therapy (HAART) in HIV infection is associated with:

- a) An increase in the rate of emergence of drug resistance
- b) A decrease in CD4 count
- c) A decrease in viral RNA in blood
- d) An increased incidence of opportunistic infections

18. Beta lactamase production is a mechanism of resistance among strains of *Haemophilus Influenza* and *Neisseria gonorrhoea*. Which of the following drugs is effective against the above organisms?

- a) Amoxicillin
- b) Ceftriaxone
- c) Clindamycin
- d) Ticarcillin

19. Regarding warfarin:

- a) Is a rapid acting anticoagulant
- b) Has poor absorption across the membranes
- c) Has teratogenic effects when administered in pregnancy
- d) Administered through the intravenous route

20. Cromolyn is useful in asthma because it:

- a) Suppresses release of histamine
- b) Block adenosine receptors in smooth muscles of bronchioles
- c) Decrease bronchial hyperactivity
- d) Decrease bacterial load in the bronchioles



**Part II: Short answer questions**

1. Outline five (5) factors that influence drug metabolism *Age Diet Sex Drene memory loss, Intake* (5marks)
2. State five systemic effects of sedative-hypnotics *Clurred spea* (5marks)
3. Write short notes on the three classes of antiretroviral drugs. *NRTIs (NRTI) PI U?* (6marks)
4. Discuss furosemide under the following headings:
  - a. classification *Diuretics* (1mark)
  - b. mode of action *Inhibit K/Na<sup>+</sup>ATPase pump* (2marks)
  - c. two indications *HTN; edema (CCF)* (2marks)
  - d. two side effects *Increased urination; thirst; diarrhea* (2marks)
5. Outline four causes of abscess formation following administration of drugs through injections *Not cleaning infection site; injecting drug using needle; injecting wrong site; immunocompromised* (6mks)
6. Explain any three (3) sources of drugs *Plants minerals animal* (6mks)
7. state five priority health messages you would share with a patient on oral hypoglycemic drugs *take medication as prescribed; Check Blood sugars; Report any side effects; Avoid overloading drugs* (5marks)

23  
35  
3  
40

**Part III: Long answer questions (LAQs)- 40 marks**

1. Mr. T is admitted on the medical ward was a diagnosis of Pulmonary Tuberculosis and is due for anti-Tb drugs
  - a. List six first line anti-TB drugs *RHEZ; streptomycin* (3 marks)
  - b. Explain three (3) mechanisms through which bacteria develop resistance to drugs (6 marks)
  - c. state four common side effects associated with anti-TB drugs (4 marks)
  - d. discuss the measures you would institute to ensure drug compliance by Mr. T during his treatment *DOTS* (7 marks)

*eye damage  
skin rashes  
sumberness  
allergic  
etc*

2. Miss A. is admitted in hospital with peptic ulcer disease.
  - a) describe four (4) classes of drugs used in treatment of peptic ulcer disease *PPI; Antiacids; H<sub>2</sub> receptor blockers; antispasmodic agents.* (4 marks)
  - b) explain four factors that influence absorption of oral drugs (8 marks)

- Drene*
- pH*
- GI motility*
- Chemical nature of drug.*
- Dosage form*
- Formulation*
- Lipid. H<sub>2</sub>O solubility.*

*Vasculant*



**KENYA MEDICAL TRAINING COLLEGE  
FACULTY OF NURSING PROMOTIONAL EXAMINATION**

**PERIOD:** END OF YEAR ONE SEMESTER 2  
**CLASS:** KRCHN (B) SEPTEMBER 2017  
**SUBJECT:** PHARMACOLOGY (PAPER 3)

**DATE: TUES 12<sup>TH</sup> JUNE 2018**      **TIME: 3 HOURS (8.30AM-11.30AM).**

**INSTRUCTIONS TO THE CANDIDATES**

1. **ENTER YOUR EXAMINATION NUMBER** on every sheet of paper used
2. **READ THE QUESTION** carefully and answer only **WHAT IS ASKED**
3. **FOR MULTIPLE CHOICE QUESTIONS** write the correct answer in **CAPITAL LETTERS**
4. **FOR SHORT ANSWER THE QUESTIONS**, follow the instructions given by the invigilator
5. **FOR LONG ANSWER QUESTIONS**, answer each question on a separate sheet of paper
6. Omission of/and or wrong numbering of question or part of question will result in 10% deduction of the marks scored from the relevant part
7. **Mobile phones and smart watches are NOT allowed in the examination hall**



**PART I: MULTIPLE CHOICE QUESTIONS (MCQ's) 40 MARKS**

1. An example of a drug derived from a plant is :
  - a. Glibenclimide
  - b. Quinine
  - c. Meclorithamine
  - d. Ribapentine
2. The route of drug administration with the highest drug bioavailability is:
  - a. Oral
  - b. Intramuscular
  - c. Intradermal
  - d. Intravenous
3. The drugs that have almost exclusively harmful effects in the body are known as:
  - a. Elixirs
  - b. Xenobiotics
  - c. Toxins
  - d. Poisons
4. The following is an opioid antagonist
  - a. Flumazenil
  - b. Naltrexone
  - c. Sulfentanil
  - d. Methadone
5. The following is not treated using Nifedipine:
  - a. Angina
  - b. Arrhythmias
  - c. Hypertension
  - d. Fluid retention
6. The drug used for of organo-phosphate poisoning is;
  - a. Atropine
  - b. Pilocarpine
  - c. propranolol
  - d. Edrophonium
7. The drugs that are classified as Sulphonamides include:
  - a. Cotrimoxazole, Sulfamethoxazole, Sulfasalazine
  - b. Sulfadiazine, Sulfisoxazole, Spironolactone
  - c. Sulfapyrazone, Sulfasalazine, Sulfamethoxazole
  - d. Cefpodoxime Proxetil, Cotrimoxazole, Sulfadiazine
8. local anaesthetics work by;
  - a. blocking calcium ion channels to prevent depolarization
  - b. blocking potassium ion channels to prevent depolarization
  - c. blocking sodium ion channels to prevent depolarisation
  - d. blocking impulse at neuromuscular junction

9. You should advise pregnant women not to take Tetracycline because it has been associated with.
- Gray baby syndrome
  - Tooth and bone defect in neonates
  - Acne
  - Excessive bleeding
10. Acyclovir is a drug of choice for treatment of herpes virus. Which of the following is its mode of action:
- Inhibit viral RNA synthesis
  - Inhibits viral DNA synthesis
  - Inhibits viral protein synthesis
  - Inhibits viral capsule formation
11. A drug that prevents the synthesis of histamine in mast cells is:
- Cromolyn
  - Cetirizine
  - Aminophylline
  - Montelukast
12. Oral Antidiabetics that works by stimulating beta cells to secrete more insulin and increase receptor sites in the tissues are classified as:
- Alfa-Glucosidase Inhibitors
  - Biguanides
  - Sulfonylureas
  - Thiazolidinediones
  - Meglitnides
13. The extrapyramidal side effects of antipsychotic drugs include:
- Tardive dyskinesia, opisthoronos, hallucinations
  - Parkinsonism, tardive dyskinesia, opisthoronos
  - Hallucinations, excessive appetite, akinesia
  - Impotence, echolalia, opisthoronos.
14. The major signs of digitalis toxicity include:
- cardiac arrhythmias
  - paraesthesia
  - excessive slowing of the pulse rate (60 beats or less per minute)
  - generalised muscle weakness
15. Combined chemotherapy of tuberculosis is used to:
- Decrease mycobacterium drug-resistance
  - Increase mycobacterium drug-resistance
  - Decrease the antimicrobial activity
  - Decrease the onset of antimycobacterial drugs biotransformation
16. When teaching about proper use of antacids, a nurse should instruct the client to:
- Stagger the administration of the antacids with other medications
  - Take the antacids with all other medications
  - Take other medications in the daytime and antacids at night
  - Drink a glass of water immediately after taking the antacids



17. A 9 year old schoolgirl has been diagnosed with taeniasis. The drug of choice in this case would be;
- Ivermectin
  - Praziquantel
  - Diethylcarbamazine
  - Albendazole
18. 4-aminoquinoline derivative antimalarial drugs include:
- Quinine, amodiaquine, chloroquine.
  - Alfan, fansidar, hydrochloroquine
  - Amodiaquine, chloroquine, hydroxychloroquine
  - Mefloquine, artesunate, artemether.
19. The drugs that are classified as diuretics include:
- Mannitol, Acetazolamide
  - Chlorothiazide, Digoxin
  - Theophylline, Butetamide
  - Furosemide, Amytal
20. The drug used to treat methotrexate toxicity is:
- Folic acid
  - Folinic acid
  - Vitamin B6
  - Scopolamine

**SECTION II: SHORT ANSWER QUESTIONS (SAQ's) 40 MARKS**

- Define the following pharmacological terms:
  - Pharmacology (1 mark)
  - Pharmacy (1 mark)
  - Pharmacodynamics (1 mark)
  - Pharmacokinetics (1 mark)
- State seven (7) factors that may modify the efficacy and choice of the dose of the drug in patients (7marks)
- State Five clinical uses of Sedative-hypnotics (5marks)
- State five (5) health messages a nurse would share with a patient on oral anticoagulants. (5mks)
- Discuss ceftriaxone under the following headings
  - Classification (1mark)
  - Mechanism of action (2marks)
  - State two indications (2marks)
  - State its two side effects (2marks)
- State six (6) provisions of the Pharmacy and Poisons Act Cap 244 of the Laws of Kenya (6 marks)
- Outline six (6) common side effects of anticancer (chemotherapeutic) drugs. (6marks)

**SECTION III: (LONG ANSWER QUESTIONS) 40 MARKS**

1. Mr Sha aged 40 years is admitted to the medical ward presenting with intestinal amoebiasis and is commenced on Metronidazole treatment.
  - a) State five (5) indications of Metronidazole (5 marks)
  - b) State three (3) contraindications to the administration of Metronidazole (3 marks)
  - c) State five (5) side effects that Mr Sha is likely to develop (5 marks)
  - d) Describe the nursing interventions that you will implement for care to Mr. Sha while undergoing treatment (7 marks)
  
2. i) Discuss diuretics under the following subtopics
  - a. Classification giving examples (4mks)
  - b. Mechanisms of action for each class (4mks)
  - c. Therapeutic uses (2mks)
  
- ii) Discuss five factors to consider in the selection of a route of drug administration (10 marks)

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