



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)

*lecturer's copy*  
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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**

*Handwritten scribbles*

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. Sulfipyrazone, 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;
  - a. Ivermectin
  - b. Praziquantel
  - c. Diethylcarbamazine
  - d. Albendazole
18. 4-aminoquinoline derivative antimalarial drugs include:
  - a. Quinine, amodiaquine, chloroquine.
  - b. Alfam, fansidar, hydrochloroquine
  - c. Amodiaquine, chloroquine, hydroxychloroquine
  - d. Mefloquine, artesunate, artemether.
19. The drugs that are classified as diuretics include:
  - a. Mannitol, Acetazolamide
  - b. Chlorothiazide, Digoxin
  - c. Theophylline, Butetamide
  - d. Furosemide, Amytal
20. The drug used to treat methotrexate toxicity is:
  - a. Folic acid
  - b. Folinic acid
  - c. Vitamin B6
  - d. Scopolamine

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

1. Define the following pharmacological terms:
 

a. Pharmacology	(1 mark)
b. Pharmacy	(1 mark)
c. Pharmacodynamics	(1 mark)
d. Pharmacokinetics	(1 mark)
2. State seven (7) factors that may modify the efficacy and choice of the dose of the drug in patients (7marks)
3. State Five clinical uses of Sedative-hypnotics (5marks)
4. State five (5) health messages a nurse would share with a patient on oral anticoagulants. (5mks)
5. Discuss ceftriaxone under the following headings
 

a. Classification	(1mark)
b. Mechanism of action	(2marks)
c. State two indications	(2marks)
d. State its two side effects	(2marks)
6. State six (6) provisions of the Pharmacy and Poisons Act Cap 244 of the Laws of Kenya (6 marks)
7. 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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