



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 12TH 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. 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;
- 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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