

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

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DATE: 14TH 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
2. READ THE QUESTIONS carefully and answer only what is asked.
3. For MULTIPLE CHOICE QUESTIONS write the correct answer in CAPITAL LETTERS
4. For SHORT ANSWER QUESTIONS, follow 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 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 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 2nd and 3rd 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) Chloroquinine, ~~pyrimethamine~~
- c) Hydrochloroquine, ~~mefloquine~~
- d) Amodiaquine, ~~sulfamethaxazole~~

*Amodiaquine 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) Amoxycillin
- 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 (SAQs)

40 marks
 • Enzyme induction
 • High Diet
 • Sex Drive

1. Outline five (5) factors that influence drug metabolism (5marks)
2. State five systemic effects of sedative-hypnotics (5marks)
 memory loss, irritability, blurred eyes
3. Write short notes on the three classes of antiretroviral drugs. (6marks)
 NRTIs, NNRTIs, PI
4. Discuss furosemide under the following headings:
 - a. classification Diuretics (1mark)
 - b. mode of action Inhibit K/Na⁺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 (6marks)
 • Not cleaning injection site
 • injecting drug by wrong route/injection wrong site
 • Immuno-compromised patient
6. Explain any three (3) sources of drugs. (6marks)
 • Plants • Minerals • Animal
7. state five priority health messages you would share with a patient on oral hypoglycemic drugs (5marks)
 • take medication as prescribed
 • Check Blood sugars
 • Report any side effects
 • Avoid overeating drugs

3 3/2
 3 5/3
 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)

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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 (4 marks)
 • PPI
 • Antiacids
 • H₂ receptor blockers
 • Proton pump inhibitors
 - b) explain four factors that influence absorption of oral drugs (8 marks)

- Dose
- pH
- GI motility
- Chemical nature of drug.
- Dosage form
- Formulation
- Lipid H₂O solubility.

Vasculature