



**AMREF INTERNATIONAL UNIVERSITY**  
**SCHOOL OF MEDICAL SCIENCES**  
**DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES**  
**KENYA REGISTERED COMMUNITY HEALTH NURSING**  
**END OF SEMESTER EXAMINATION, SEPTEMBER-DECEMBER 2022**

**COURSE CODE AND TITLE: DNS 118 PHARMACOLOGY I**

**TIME:** 2 Hours                      **Start:** 0900 HOURS                      **Finish:** 1100 HOURS

**DATE: 7<sup>TH</sup> DECEMBER 2022**

**INSTRUCTIONS**

1. This exam will be marked **out of 70 Marks**
2. ALL Questions are compulsory.
3. The Examination has Three Sections: Section A- Multiple Choice Questions, Section B: Short Answer Questions, Section C: Long Essay Questions
4. Answer all Questions in the ANSWER BOOKLET provided. Do not write on the question paper.

**SECTION I: MULTIPLE CHOICES QUESTIONS**

**(20 MARKS)**

1. Pharmacodynamics involves: -
  - a. The study of mechanisms of drug absorption and distribution
  - b. The study of biological and therapeutic effects of drugs
  - c. The study of mechanisms of drug biotransformation in body systems
  - d. The study of methods of new drug development and regulation
2. The most common adverse effects of anti-tuberculosis drugs include: -
  - a. Red-orange discoloration of urine
  - b. Hypersensitivity
  - c. Hepatotoxicity
  - d. Congestive Heart Failure
3. The following statements describes a potent drug: -
  - a. It produces maximal response during treatment
  - b. The amount needed to produce a certain response is less
  - c. It produces minimal/no side effects during treatment
  - d. It has a rapid onset of action and more sustained action
4. The teratogenic potential of a drug tends to be high: -
  - a. During first trimester of pregnancy
  - b. During second trimester of pregnancy
  - c. During third trimester of pregnancy
  - d. During first stage of labor
5. The treatment that involves 2 drugs enhancing each other's action so that their overall activity is greater is referred to as: -
  - a. Placebo effect
  - b. Synergistic effect
  - c. Side effect
  - d. Idiosyncratic effect

6. The first line medication used in treatment of tuberculosis include: -
  - a. Isoniazid, Cycloserine, Rifampicin
  - b. Isoniazid, Pyrazinamide, Rifampicin
  - c. Streptomycin Para-aminosalicylic acid, Isoniazid
  - d. Ethambutol, Para-aminosalicylic acid, Isoniazid
7. The most appropriate dosage for Azithromycin is: -
  - a. 500mg TID 5/7
  - b. 500mg OD 3/7
  - c. 250mg TID 5/7
  - d. 250mg OD 3/7
8. The most critical caution on Levofloxacin concerns: -
  - a. Seizures
  - b. Hepatotoxicity
  - c. QT elevation
  - d. Tendon rupture
9. The half-life of a drug may be helpful to determine: -
  - a. Rate of absorption of a drug from GIT
  - b. Frequency of dose administration
  - c. Amount of dosage in specific medications
  - d. Distribution into different body systems
10. Drugs which undergo high degree of first pass metabolism in the liver: -
  - a. Have oral bioavailability
  - b. Are excreted primarily in bile
  - c. Are contraindicated in liver disease
  - d. Are considered highly water soluble
11. The act of parliament that control of the use and trade in drugs and poisons is: -
  - a. CAP 249
  - b. CAP 242

- c. CAP 246
  - d. CAP 244
12. Pharmacovigilance is done for monitoring of: -
- a. Drug prices
  - b. Unethical practices
  - c. Drug safety
  - d. Drug stocks
13. Which of the following groups of antibiotics demonstrates a bacteriostatic effect: -
- a. Carbapenems
  - b. Macrolides
  - c. Aminoglycosides
  - d. Cephalosporins
14. One of following drugs is a third Generation cephalosporin: -
- a. Ceftriaxone
  - b. Chloramphenicol
  - c. Ciprofloxacin
  - d. Cephalexin
15. Clavulanic acid is combined with amoxicillin because: -
- a. It kills bacteria that are not killed by amoxicillin
  - b. It reduces renal clearance of amoxicillin
  - c. It counteracts the side effects of amoxicillin
  - d. Inhibits beta lactamases that destroy Amoxicillin
16. The mode of action of doxycycline is: -
- a. Inhibition of bacterial cell wall synthesis
  - b. Inhibition of nucleic acid synthesis
  - c. Inhibition of protein synthesis
  - d. Inhibition of dihydrofolate reductase
17. The following antimalarial drugs are associated with cinchonism: -
- a. Chloroquine, amodiaquine
  - b. Artemether, artesunate
  - c. Quinine, quinidine

- d. Halofantrine, mefloquine
18. Combined chemotherapy of tuberculosis is used to: -
- Decrease mycobacterium drug-resistance
  - Increase mycobacterium drug-resistance
  - Decrease the antimicrobial activity in the body
  - Increase the antimicrobial activity in the body
19. The following is the correct combination in co-trimoxazole: -
- Sulfinpyrazone + trimethoprim
  - Sulfadiazine + trimethoprim
  - Sulphamethoxazole + trimethoprim
  - Sulfasalazine + trimethoprim
20. Benzyl penicillin is not used orally because: -
- It is destroyed by acid in stomach and absorption is incomplete
  - It is a very bitter drug and may cause severe GIT distress to most patients
  - It produces severe nausea and vomiting on oral administration
  - It corrodes the stomach and intestinal mucosa when taken orally

**SECTION B: SHORT ANSWER QUESTIONS** **(30 MARKS)**

1. Explain two (2) types of drug dependence. (4marks)
2. Discuss levofloxacin under the following sub-headings  
  - a) Classification (1 mark)
  - b) Mechanism of action (2 marks)
  - c) State two (2) indication (2 marks)
3. Apart from plant and animal sources, describe three (3) other sources of drug. (6 marks)
4. Explain three (3) common medication errors made by nurses in drug administration. (6 marks)
5. Outline the four (4) main mechanisms of antibiotic drug resistance (4 marks)
6. Explain five (5) ideal qualities of a good antimicrobial. (5 marks)

**SECTION C: LONG ANSWER QUESTIONS** **(20MARKS)**

1. Explain any five (5) factors that influence absorption of drugs. (10 marks)

2. Outline 5 nursing responsibilities in drug administration.

(10 marks)

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