



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
MEDICAL LABORATORY SCIENCES
BMLS 13M REGULAR

AML 4201: PHARMACOLOGY AND PHARMACOGNOSY

SEMESTER EXAMINATION

APRIL 2014 SERIES

2 HOURS

Instructions to candidates:

This paper consists of **TWO** sections **A** and **B**

Section A -Contains MCQS, Answer **ALL** questions in **Section B**.

SECTION A - MCQs - (30marks)

1. Absorption, distribution of a drug are process under which of the following?
 - a) Pharmacodynamics
 - b) Pharmacokinetics
 - c) Chemotherapy
 - d) Pharmacotherapeutics
2. Physiological and biochemical effects of drugs and their Mechanism of action is generally referred to as:-
 - a) Pharmacotherapeutics
 - b) Pharmacokinetics
 - c) Pharmacodynamics
 - d) Clinical pharmacology
3. Treatment of systemic infection with specific drugs that have selective toxicity for the infecting organism is referred to as:-

- a) Pharmacodynamics
 - b) Chemotherapy
 - c) Pharmacokinetics
 - d) Clinical pharmacology
4. The study of poisonous effects of drugs and other chemicals with emphasis on detection, prevention and treatment of poisons is referral to as:-
- a) Pharmacodynamics
 - b) Pharmacotherapeutics
 - c) Toxicology
 - d) Chemotherapy
5. The name of a drug accepted by competent scientific body such as the united states Adopted name is termed as:-
- a) Chemical name
 - b) Non –proprietary name
 - c) Proprietary name
 - d) Brand name
6. The following dosage form is administered through the lungs. Which one ?
- a) Lozenges dosage forms
 - b) Pessaries dosage forms
 - c) Aerosols dosages forms
 - d) Intrathecal dosage forms
7. Lozenges are administered to the body through which of the following route?
- a) Mouth
 - b) Vagina
 - c) Deeper tissue
 - d) Arial canal
8. Which of the following dosage forms is administer through the vagina?
- a) Lozenges dosages forms
 - b) Pessaries dosage form
 - c) Aerosols dosage forms
 - d) Suppositories dosage forms
9. The most ideal route of Administration for suppositories is
- a) Deeper tissue
 - b) Vagina
 - c) Mouth
 - d) Anal canal
10. Intrathecal dosage forms are administered into the body through which of the following routes?
- a) Intravenous route

- b) Deeper tissue route
- c) Bronchi & lungs route
- d) Intra muscular route

11. Retention Enema for systemic effects can be administered through which of the following routes?
- a) Sublingual route
 - b) Buccal route
 - c) Rectal route
 - d) Cutaneous route
12. Transdermal patches of nitroglycerin fentanyl, nicotine are administered through which of the following routes?
- a) Rectal route
 - b) Sublingual route
 - c) Cutaneous route
 - d) Oral route
13. Volatile liquids and gases for system action are give by which of the following routes?
- a) Nasal route
 - b) Inhalation route
 - c) Parenteral route
 - d) Oral route
14. Which of the routes below gives 100% bioavailability?
- a) Intramuscular route
 - b) Intradermal route
 - c) Cutomous route
 - d) Intravenous route
15. Drug release from its dosage form is a characteristic of which of the following pharmacokinetic processes ?
- a) Absorption
 - b) Distribution
 - c) Biotransformation
 - d) Excretion
16. When the drug diffuses across the membrane in the direction of its concentration gradient, the membrane playing no active role the process is termed as:-
- a) Filtration
 - b) Active transport
 - c) Facilitated diffusion
 - d) Passive diffusion
17. Passage of drugs through aqueous pores in the membrane or through paracellular spaces is termed as?
- a) Passive diffusion
 - b) Active transport
 - c) Facilitated diffusion

- d) Filtration
18. The movement of the drug against the concentration gradient which needs energy and is inhibited by metabolic poisons is?
- Facilitated diffusion
 - Passive diffusion
 - Pinocytosis
 - Active transport
19. The rate and extend of absorption of a drug from its dosage form as determined by its concentration –time curve is termed as:-
- Biotransformation
 - Bio pharmaceuticals
 - Bioavailability
 - Plasma concentration
20. The extend of drug distribution depends on all the following except?
- Lipid solubility
 - Ionization at body pH
 - Extend of plasma protein binding
 - Extend of elimination from the body
21. Considering the bio-availability of Digoxin in the body a large amount of this drugs is stored in which of the following tissues?
- Retina
 - Heart
 - Thyroid
 - Teeth
22. Thyroid gland stores to a large external which of the following drugs?
- Tetracycline
 - Digoxin
 - Iodine
 - Chloroquine
23. Which of the following drugs is highly deposited in the teeth and bones .
- Digoxin
 - Tetracycline
 - Iodine
 - Chloroquine
24. The following drugs acts by potentiation of the Action of Levodopa in parkinsonism management
- Physostigmine
 - Trimethoprin
 - Tyramine
 - Carbidopa
25. Chemical alteration of the drug in the body is refered to as?

- a) Bioavailability
 - b) Biotransformation
 - c) Biopharmaceutics
 - d) Pharmacokinetics
26. The following drugs inhibit drug metabolism which one does not?
- a) Diltiazem
 - b) Quinidine
 - c) Ciprofloxacin
 - d) Phenobabitone
27. Quinine is obtained from which part of cinchona tree?
- a) Leaves
 - b) Bark
 - c) Flowers
 - d) Sterm
28. Atropine is obtained from which of the following plants?
- a) Cinchona officinalis
 - b) Digitalis purpurae
 - c) Atropa belladonna
 - d) Step Venezuela
29. One of the following plants produces a cardiac glycoside used in the treatment glycoside used in the treatment of congestive heart failure?
- a) Cinchona officinalis
 - b) Digitalis purpurae
 - c) Atropa belladonna
 - d) Strep verequeta
30. Step Venezuela produces which of the following drugs?
- a) Digoxin
 - b) Atropine
 - c) Quinine
 - d) Chloramphemical

SECTION B ESSAY
(ANSWER ALL QUESTION IN THIS SECTION)

31. Discuss any three main local routes of drug administration and any 7 factors governing choice of route to be used in drug administration. **(20 marks)**
32. Explain the 5 different non-synthetic processes of drug metabolism giving suitable examples. **(20 marks)**
33. Explain any two major effects of
- a) Combination of drugs **(10 marks)**
 - b) Discuss any 5 (five) factors modifying drug action in the body. **(10 marks)**
34. State the plant sources, family name, class of active substance present and uses of the following plant medicinal substances .
- a) Cocaine **(4 marks)**
 - b) Quinine **(4 marks)**
 - c) Digoxin **(4 marks)**
 - d) Opium **(4 marks)**
 - e) Atropine **(4 marks)**