



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES
BACHELOR OF SCIENCE IN NURSING/BACHELOR OF SCIENCE IN
MIDWIFERY
END OF SEMESTER EXAMINATION NOVEMBER 2022**

BSN/BSM 222: CLINICAL PHARMACOLOGY

DATE: 1ST DECEMBER 2022

TIME: TWO HOURS START: 0900 HRS FINISH: 1100HRS

INSTRUCTIONS

1. Please indicate your **REGISTRATION NUMBER** on all the answer sheets:
DO NOT WRITE YOUR NAME.
2. The paper consists of **THREE (3)** sections.
3. **SECTION A** consists of **MULTIPLE CHOICE QUESTIONS**. Attempt **ALL** the questions by choosing the **BEST** choice among the statements. Clearly indicate any corrections made.
4. **SECTION B** consists of **SHORT ANSWER QUESTIONS**. Attempt **ALL** the questions.
5. **SECTION III** consists of **LONG ESSAY QUESTIONS**. Attempt **ALL** the questions.

MULTIPLE ANSWER QUESTIONS (20 MARKS)

1. The term “bioavailability” means
 - A. Plasma protein binding degree of substance
 - B. Permeability through the brain-blood barrier
 - C. Fraction of an uncharged drug reaching the systemic circulation following any route administration
 - D. Amount of a substance in urine relative to the initial doze
2. Muscle dystonia is a side effect of the following drug
 - A. Metoclopramide
 - B. Domperidone
 - C. Prochlorperazine
 - D. Cisapride
3. The following diuretic can be used in a patient with hypokalemia
 - A. Ethacrynic acid
 - B. Furosemide
 - C. Hydrochlorothiazide
 - D. Triamterene
4. The following drug causes hypokalemic metabolic alkalosis & reversible ototoxicity.
 - A. Acetazolamide
 - B. Chlorothiazide
 - C. Furosemide
 - D. Spironolactone
5. The following aminoglycoside is most commonly used in the treatment of cystic fibrosis patients infected with *Pseudomonas aeruginosa*
 - A. Amikacin
 - B. Streptomycin
 - C. Tobramycin
 - D. Gentamicin
6. The drug most likely to cause “Steven-Johnson syndrome” is
 - A. Bisacodyl

- B. Docusates
 - C. Prucalopride
 - D. Liquid paraffin
7. What are the side effects of Domperidone?
- A. Galactorrhoea
 - B. Dry mouth
 - C. Headache
 - D. All the answers are correct
8. Example of short-to medium-acting glucocorticoid
- A. Triamcinolone
 - B. Fluprednisolone
 - C. Prednisolone
 - D. Fludrocortisone
9. Which one of the following fits the pharmacokinetics of Progesterone:
- A. Slow absorption
 - B. Limited hepatic metabolism
 - C. Conjugated with glucuronic acid following metabolism to pregnanediol
 - D. Conjugated with sulphuric acid
10. The first-line drug for patients with type 2 diabetes and obesity is
- A. Acarbose
 - B. Metformin
 - C. Sulphonylureas
 - D. Insulin
11. Glyburide is contraindicated in the presence of
- A. Hepatic impairment and renal insufficiency
 - B. Hepatic impairment only
 - C. Renal insufficiency only
 - D. Cardiac insufficiency
12. What does “affinity” mean?
- A. A measure of how tightly a drug binds to plasma proteins
 - B. A measure of how tightly a drug binds to a receptor

- C. A measure of inhibiting potency of a drug
 - D. A measure of bioavailability of a drug
13. Pharmacodynamics involves the following?
- A. Information about main mechanisms of drug absorption
 - B. Information about unwanted effects
 - C. Information about biological barriers
 - D. Information about excretion of a drug from the organism
14. What kind of substances **CAN'T** permeate membranes by passive diffusion?
- A. Lipid-soluble
 - B. Non-ionized substances
 - C. Hydrophobic substances
 - D. Hydrophilic substances
15. A hydrophilic medicinal agent has the following property:
- A. Low ability to penetrate through the cell membrane lipids
 - B. Penetrate through membranes by means of endocytosis
 - C. Easy permeation through the blood-brain barrier
 - D. High reabsorption in renal tubules
16. The route of drug administration most likely to lead to the first-pass effect is
- A. Sublingual
 - B. Oral
 - C. Intravenous
 - D. Intramuscular
17. Local anesthetics produce:
- A. Analgesia, amnesia, loss of consciousness
 - B. Blocking pain sensation without loss of consciousness
 - C. Alleviation of anxiety and pain with an altered level of consciousness
 - D. A stupor or somnolent state
18. . Which of the following local anesthetics is a useful antiarrhythmic agent?
- A. Cocaine
 - B. Lidocaine
 - C. Bupivacaine

- D. Ropivacaine
19. Acetylcholine is not a specific neurotransmitter at:
- A. Sympathetic ganglia
 - B. Sympathetic postganglionic nerve endings
 - C. Parasympathetic ganglia
 - D. Parasympathetic postganglionic nerve endings
20. The following cholinomimetics is most widely used for paralytic ileus and atony of the urinary bladder
- A. Lobeline
 - B. Neostigmine
 - C. Pilocarpine
 - D. Echothiophate

SECTION B: SHORT ANSWER QUESTIONS (30 MARKS)

1. Illustrate the pharmacokinetics of Angiotensin Converting Enzyme Inhibitor (ACEIs) (8 Marks)
2. Explain **Three (3)** goals of therapy using anti-cancer drugs (6 Marks)
3. Illustrate the classification of cephalosporin's (8 Marks)
4. Describe **Four (4)** Properties of an Ideal Drug (8 marks)

SECTION C: LONG ANSWER QUESTION/S (20 MARKS)

1. Discuss nursing considerations for a patient on anti-TB drugs (10 Marks)
2. Discuss measures to curb antibiotic resistance (10 Marks)

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