

**UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF GENERAL NURSING**

FINAL EXAMINATION, MAY 2013

COUESE TITLE: PHARMACOLOGY IN NURSING

COURSE CODE: GNS 208

TIME ALLOCATED: TWO (2) HOURS

MARKS ALLOCATED: 75

INSTRUCTION:

- **ANSWER ALL QUESTIONS**
- **THERE ARE SEVEN (6) PRINTED PAGES EXCLUDING COVER PAGE**
- **THERE ARE 2 SETIONS, A AND B:**
 - **SECTION A: OBJECTIVE QUESTIONS WORTH 35 MARKS**
 - **SECTION B: THREE FREE RESPONSE QUESTIONS WORTH 40 MARKS**

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR

SECTION A: OBJECTIVE QUESTIONS (35 MARKS)

For each question, choose the most appropriate response and write in your answer booklet the corresponding letter only, in **capital letters**, e.g. 31 B. Each correct response carries 1 mark.

1. Mechanism of action of a drug is best described as its _____.
 - A. Posology
 - B. Pharmacology
 - C. Pharmacodynamics
 - D. Pharmacokinetics

2. Which of the following is correct about alkaloid drugs in general?
 - A. They neutralises acids
 - B. They include caffeine
 - C. They are extracted from parts of plants
 - D. All of the above

3. Who is responsible for controlling the use and monitoring the quality of drugs used in a country?
 - A. Nurses and doctors
 - B. Food and Drug Authority
 - C. Pharmacies
 - D. Pharmacopoeia

4. In prescribing any medication to a client, it is recommended that you use _____.
 - A. The chemical name
 - B. The generic name
 - C. The brand name
 - D. All the names together

5. A client came complaining of severe headache and paracetamol 1g 4 times a day for five days was prescribed. The client took the medication only for one day and then stopped. Which of the following is the most probable outcome of this treatment?
- A. Drug resistance
 - B. The headache may continue
 - C. More opportunistic infections will arise
 - D. A. and B
6. Fungal infections are one of the common opportunistic infection in HIV infected people. Which of the following drugs may be given specifically to cure these infections?
- A. Zidovudine
 - B. Fluconazole
 - C. Any antiretroviral drug
 - D. They have no cure
7. Cotrimoxazole in HIV infected people is usually meant to _____.
- A. Block viral replication.
 - B. Prevent opportunistic infections
 - C. Stimulate production of CD4 cells
 - D. Treat viral opportunistic infections
8. Pethidine is usually administered over a short period of time primarily because _____.
- A. It is very expensive and available in limited stocks
 - B. It acts very fast and its action is irreversible
 - C. It can cause tolerance or addiction
 - D. All of the above
9. For a TB client receiving first line anti TB drugs, which of the following adverse effect may a nurse need to be cautious of?
- A. Postural hypotension
 - B. Peripheral neuropathy
 - C. Immunosuppression
 - D. Internal bleeding

10. Which of the following drugs is associated with hearing problems as a side effect?
- A. Gentamycin
 - B. Streptomycin
 - C. Adrenaline
 - D. A. and B.
11. A drug of preference for a diarrhoeal gastrointestinal infection is _____.
- A. Metronidazole
 - B. Magnesium trisilicate
 - C. Cimetidine
 - D. Miconazole
12. What health education would you give to client taking cimetidine?
- A. To reduce salt intake
 - B. To avoid smoking
 - C. To take the medication on an empty stomach
 - D. All of the above
13. Which of the following clients would you advise to avoid driving or operating machines after taking medication? One who is taking _____.
- A. Phenobabitone
 - B. Diazepam
 - C. Codeine phosphate
 - D. All of the above
14. Which of the following is true about codeine phosphate?
- A. It is a pain-killer
 - B. It can relieve cough
 - C. It can alleviate diarrhoea
 - D. All of the above
15. Mebendazole is used to treat _____.
- A. Fungal infections
 - B. Viral infections of the gut

- C. Worm infestations of the gut
 - D. Any bacterial infection
16. Malaria can be treated with _____.
- A. Quinine
 - B. Fansidar
 - C. Amoxicillin
 - D. A and B
17. Lulu sustained an ankle sprain while playing soccer. The ankle is painful and swollen and warm on touching, but all vital signs are normal. Internal injuries have not been ruled out. Which analgesic will be most appropriate
- A. Aspirin
 - B. Paracetamol
 - C. Ibuprofen
 - D. Pethidine
18. Muscle relaxants include _____.
- A. Tubocurarine
 - B. Acetylcholine
 - C. Adrenergic receptor blockers
 - D. Diclofenac
19. Which of the following can alleviate hypoglycaemia?
- A. Insulin
 - B. Glibenclamide
 - C. Glucagon
 - D. A. and B
20. In a hospital setting, which of the following drugs would you find on an emergency trolley?
- A. Hydrocortisone
 - B. Diazepam
 - C. Adrenaline
 - D. All of the above

Match each of the drug or class of drugs in column A with its appropriate mode of action in column B

Column A – Drug	Column B - Mode of action
21. Atenolol	A. Replacement of ions
22. Benzyl penicillin	B. Stimulate certain receptors
23. Magnesium trisilicate	C. Inhibits enzymes
24. Tenofovir	D. Incorporated into DNA and halt replication
25. Cefaclor	E. Blocks ion channels
26. Nifedipine	F. Blocks certain receptors
27. Captopril	G. Stimulates production of antibodies
28. Ferrous sulphate	H. Interferes with bacterial cell wall integrity or synthesis
29. Salbutamol	I. Neutralises body acids
30. Adrenaline	J. Neutralises body alkalises

Questions 31-35 refers to this scenario: You read a pamphlet accompanying a certain drug, and you noted the following information, among others:

- **Reconstitute the drug with 8mls of distilled water**
- **It is highly metabolised by the liver.**
- **It is mainly excreted in urine**
- **The half life is four (3) hours**

Based on the given information, state whether each of the following statements is true (T) or false (F): Write the corresponding letter only, that is, T or F

31. This drug is meant for adult clients only.
32. The drug is contraindicated to people with renal failure
33. The drug should be taken with food
34. The drug has to be given more frequently
35. Its route of administration is only intravenous

SECTION B: SHORT ESSAY QUESTIONS (40 MARKS)

Answer the following questions as asked. Figures in brackets indicate marks allocated for each question.

1.

- (a) A client is prescribed a furosemide infusion at a rate of 1.5mg/min. You have 250mg of furosemide in 250mls of 0.9% normal saline. Calculate the drip rate in drops/min assuming you are using the standard giving set. Show your working. [3]
- (b) Outline any three (3) factors that influence your choice of the following, giving an example for each factor:
- (i) The route of administering a drug [6]
- (ii) The dose which you give to a client [6]
- (c) List any five anti-TB drugs that constitute first-line TB treatment, and for each state one of its major side effects [5]

[Subtotal 20 Marks]

2. A client who came presenting with difficulties in breathing and generalised oedema was commenced on digoxin and spironolactone
- (a) State one main indication of digoxin [1]
- (b) Briefly describe and explain the three (3) effects of digoxin on its main target organ(s) [6]
- (c) Based on the prescription, outline, with rationales, your nursing considerations as you care for the client [8]
- (d) Why was it necessary to add spironolactone in this case? [5]

[Subtotal 20 Marks]