



FACULTY OF HEALTH SCIENCES

RE-SIT EXAMINATION

JULY 2018

TITLE: PHARMACOLOGY FOR NURSES

COURSE CODE: GNS 208

TIME ALLOWED: 2 HOURS

INSTRUCTIONS: 1. PLEASE READ INSTRUCTIONS

CAREFULLY

2. PLEASE ANSWER ALL QUESTIONS

3. EACH QUESTION CARRIES 25 MARKS

**4. THIS PAPER HAS 6 PAGES INCLUDING
THE COVER PAGE**

TOTAL MARKS: 75

***DO NOT OPEN THE EXAMINATION PAPER UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATOR***

QUESTION 1

SECTION A - MULTIPLE CHOICE

Choose the most appropriate answer, and write only the number with the corresponding letter in the answer sheet, e.g. 17. B

1. Which of the following are the most important sites for drug elimination?
 - a. Pulmonary and liver
 - b. Liver and gastrointestinal tract
 - c. Kidney and liver
 - d. Skin and liver

2. Which of the following affects the absorption of drugs in the body?
 - a. Route of administration
 - b. Body size of the patient
 - c. Presence of channels and pores for active transport
 - d. Blood flow

3. Which of the following affects distribution of drugs in the body?
 - a. Blood flow to tissues
 - b. Site of absorption
 - c. Plasma drug level
 - d. Functionality of the renal system

4. Which of the following may change a patient's response to a drug?
 - a. Idiosyncratic drug responses
 - b. Hypersensitivity reactions
 - c. Changes in the number and function of receptors
 - d. Blood flow to tissues

5. Which of the following indicates the major role of receptors in the body?
 - a. Determine the rate of drug elimination
 - b. Determine drug action sensitivity
 - c. Provides a means of blocking and mediating drug action
 - d. Act as drug storage sites

6. The prescription "*loperamide 4mg p.o. after every loose stool*" is a
 - a. P.R.N order
 - b. single order
 - c. Standing order
 - d. None of the above

7. A two year-old infant is brought into the emergency room having a seizure episode. The most appropriate nursing action is to
- Ask the mother to assist in the administration of oral diazepam syrup
 - Quickly administer IV diazepam
 - Inform the doctor
 - Administer a rectal diazepam suppository
8. Extrapyramidal effects of typical antipsychotics include all of the following, except:
- Dystonia
 - Galactorrhea
 - Miosis
 - Restlessness
9. According to _____, drugs are administered to pregnant women despite that animal studies have shown fetal risk arising from the drugs' use
- Pregnancy Category C
 - Pregnancy Category B
 - Pregnancy Category A
 - Pregnancy Category X
10. The order *morphine 4mg I.M. q4h p.r.n pain, hold for resp rate < 12bpm* means
- Give morphine 4mg intramuscularly four times per day for pain; hold for respiratory rate less than 12 breaths per minute
 - Give morphine 4mg intramuscularly every 4 hours for pain; hold for respiratory rate greater than 12 breaths per minute
 - Give morphine 4mg intramuscularly every 4 hours as needed for pain; hold for respiratory rate less than 12 breaths per minute
 - Give morphine 4mg intramuscularly every 6 hours for pain; hold for respiratory rate greater than 12 breaths per minute
11. Which drug is likely to relieve the spasm-like pain in an adolescent girl who experiences persistent dysmenorrhoea each month?
- Aspirin
 - Grand par powder
 - Hyoscinebutyl bromide
 - Phenergan
12. Which of the following drugs has diuretic as well as potassium replacement effect?
- Spironolactone
 - Propranolol
 - Mayogel
 - Warfarin

13. Which of the following is NOT a controlled drug of addiction?
- Marijuana
 - Diclofenac
 - Morphine
 - Pethidine
14. The buccal route of drug administration entails placing the drug;
- Under the tongue
 - At the centre of the tongue
 - Between the cheek and teeth
 - At the back of the tongue.
15. The first line antiretroviral treatment in adults (non-pregnant) includes:
- TDF+3TC+EFV
 - TDK+2TC+EFV
 - TDG+1TC+NVP
 - TDF+OTC+FRV
16. In the general drug schedules, non-prescription drugs are listed as:
- Schedule 1 to schedule 3 drugs
 - Schedule 3 to schedule 8 drugs
 - Schedule 0 to schedule 2 drugs
 - Schedule 5 drugs

SECTION B - DOSAGE CALCULATIONS

Show your working in all calculations.

- Musa has been prescribed promethazine 12.5mg mane and 50mg nocte. The promethazine is available in 25mg tablets. How many tablets is he going to receive per day? (3)
- The physician has ordered I.V. Ringer Lactate 1L 8hrly for one day. Calculate the flow rate of the Ringer Lactate. (3)
- hydrocortisone 100mg i.m. q4h has been ordered for your patient with Asthma. The vial contains 120mg/ml. How much hydrocortisone should be administered? (3)

(Total = 25 marks)

QUESTION 2

- 2.1 Discuss the aspects of health assessment that must be considered by the nurse in client drug management (*1/2 mark for correct fact, and 1/2 mark for correct explanation*) (6)
- 2.2 Describe how the following situations may contribute to legal action against the nurse in drug administration.
- The patient becomes addicted to the prescribed drug
 - The practitioner fails to detect symptoms of an overdose or adverse reaction (2)
- 2.3 Explain any three (3) pediatric drug considerations under the sub-heading '*Drug Distribution*' (3)
- 2.4 Describe how the following adjuvants produce analgesia
- Corticosteroids
 - Antidepressants (2)
- 2.5 a) Describe the pharmacodynamics of Non-Steroidal Anti-inflammatory drugs (NSAIDs) (4)
- b) Explain why Non-Steroidal Anti-inflammatory Drugs (NSAIDs) are contraindicated in pregnancy, particularly during the third trimester. (2)
- 2.6 Describe the Pharmacodynamics of tricyclic antidepressants (3)
- 2.7 Mention any three (3) disadvantages of using the rectal route of drug administration (3)

(Total = 25 marks)

QUESTION 3

3.1 Define the following term as they relate to pharmacology;

- a) Antagonist [2]
- b) Agonist [2]
- c) Contraindication [2]
- d) First pass effect [2]
- e) Drug elimination [2]

3.2 Briefly describe the four (4) principles of pharmacokinetics [12]

[1 mark for identifying principle & 2 marks for description]

3.3 Briefly explain any three (3) common drug errors in nursing practice [3]

(Total = 25 marks)