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 "Iopramide 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

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7. A two year-old infant is brought into the emergency room having a seizure episode.
   The most appropriate nursing action is to
   a. Ask the mother to assist in the administration of oral diazepam syrup
   b. Quickly administer IV diazepam
   c. Inform the doctor
   d. Administer a rectal diazepam suppository

8. Extrapyramidal effects of typical antipsychotics include all of the following, except:
   a. Dystonia
   b. Galactorrhea
   c. Miosis
   d. Restlessness

9. According to _________, drugs are administered to pregnant women
   despite that animal studies have shown fetal risk arising from the drugs' use
   a. Pregnancy Category C
   b. Pregnancy Category B
   c. Pregnancy Category A
   d. Pregnancy Category X

10. The order morphine 4mg I.M. q 4h p.r.n pain, hold for resp rate < 12rpm means
    a. Give morphine 4mg intramuscularly four times per day for pain; hold for
       respiratory rate less than 12 breaths per minute
    b. Give morphine 4mg intramuscularly every 4 hours for pain; hold for
       respiratory rate greater than 12 breaths per minute
    c. Give morphine 4mg intramuscularly every 4 hours as needed for pain; hold for
       respiratory rate less than 12 breaths per minute
    d. 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?
    a. Aspirin
    b. Grand par powder
    c. Hyoscinebutyl bromide
    d. Phenergan

12. Which of the following drugs has diuretic as well as potassium replacement effect?
    a. Spironolactone
    b. Propranolol
    c. Mayogel
    d. Warfarin
13. Which of the following is NOT a controlled drug of addiction?
   a. Marijuana  
   b. Diclofenac  
   c. Morphine  
   d. Pethidine

14. The buccal route of drug administration entails placing the drug:
   a. Under the tongue  
   b. At the centre of the tongue  
   c. Between the cheek and teeth  
   d. At the back of the tongue.

15. The first line antiretroviral treatment in adults (non-pregnant) includes:
   a. TDF+3TC+EFV  
   b. TDX+2TC+EFV  
   c. TDF+1TC+NVP  
   d. TDF+OTC+FRV

16. In the general drug schedules, non-prescription drugs are listed as:
   a. Schedule 1 to schedule 3 drugs  
   b. Schedule 3 to schedule 8 drugs  
   c. Schedule 0 to schedule 2 drugs  
   d. Schedule 5 drugs

SECTION B - DOSAGE CALCULATIONS

Show your working in all calculations.

1. 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)

2. The physician has ordered I.V. Ringer Lactate 1L 8hrly for one day. Calculate the flow rate of the Ringer Lactate. (3)

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 (½ mark for correct fact, and ½ mark for correct explanation) (6)

2.2 Describe how the following situations may contribute to legal action against the nurse in drug administration.
   a. The patient becomes addicted to the prescribed drug
   b. 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
   a. Corticosteroids
   b. 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)