**CHUKA** 



#### UNIVERSITY

## **UNIVERSITY EXAMINATIONS**

# EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN NURSING

**NURU 219: PHARMACOLOGY II** 

STREAMS: BSC (NURSING) Y2S2 TIME: 2 HOURS

DAY/DATE: MONDAY 01/11/2021 2.30 P.M. – 4.30 P.M.

### **INSTRUCTIONS:**

• Do not write anything on the question paper.

- Mobile phones and any other reference materials are NOT allowed in the examination room.
- The paper has THREE sections. Answer ALL questions
- All your answers for Section I (MCQs) should be on one page.
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

# MULTIPLE CHOICE QUESTIONS 20 Marks

- 1. Cyanocobalamin (vitamin B12) is indicated for the treatment of:
  - a. Acute lymphocytic leukemia
  - b. Pernicious anemia
  - c. Bone marrow suppression
  - d. Optic nerve atrophy

- 2. A patient you follow in clinic has a well-known heroin abuse problem. Drug which could potentially prevent an abstinence withdrawal syndrome during hospitalization is:
- A. morphine
- B. nalbuphine
- C. methadone
- D. pethidine
- 3. Effects of benzodiazepines include all of the following EXCEPT:
- a. paradoxical stimulation
- b. tolerance
- c. respiratory depression in patients with obstructive lung disease
- d. lower seizure threshold
- 4. ) Which of the following is NOT an indication for  $\beta$ -blocker therapy?
- a) Hypotension
- b) Angina pectoris
- c) Arrhythmias
- d) Myocardial infarction
- 5. Which of the following antiarrhythmics may worsen angina symptoms by increasing myocardial oxygen requirements?
- A. lidocaine
- B. verapamil
- C. propranolol
- D. furosemide
- 6. The potential central nervous system effects of haloperidol is:
- a. monoamine oxidase inhibition
- b. cholinesterase inhibition
- c. blockade of serotonin in the basal ganglia
- d. blockade of dopamine reuptake

- 7. The client has been taking omeprazole (Prilosec) for 4 weeks. The ambulatory care nurse evaluates that the client is receiving optimal intended effect of the medication if the client reports the absence of which symptom?
  - A. Diarrhea
  - B. Heartburn
  - C. Flatulence
  - D. Constipation
- 8. Which of the following is the antidote for the toxin Benzodiazepines?
  - A. Flumazenil
  - B. Methylene blue
  - C. Deferoxamine
  - D. Alkalinize urine
- 9. A patient is in the hospital and is stable on digoxin 0.175 mg IV qd (daily). How much digoxin in mg. would you need to give your patient orally, given that the bioavailability for oral digoxin tablets is 0.7?
- a) (0.175 \* 0.7) / (1.0) = 0.1225 mg
- b) (0.175 \* 1) / (0.7) = 0.25 mg
- c) (0.175 + 0.7) / (1.0) = 0.875 mg
- d) (0.175 + 1) / (0.7) = 1.67 mg
- 10. Disulfiram (Antabuse) is prescribed for a client who is seen in the psychiatric health care clinic. The nurse is collecting data on the client and is providing instructions regarding the use of this medication. Which is most important for the nurse to determine before administration of this medication?

- A. A history of hyperthyroidism
- B. A history of diabetes insipidus
- C. When the last full meal was consumed
- D. When the last alcoholic drink was consumed
- 11. While teaching a patient newly diagnosed with a seizure disorder, the nurse correctly states the goal of pharmacologic therapy as:
  - a. Eradicating all seizure activity and then weaning off medication once the patient is seizure free for 3 months
  - b. Reducing seizure occurrence to one per week
  - c. Maximally reducing seizure activity while minimizing side effects of medication therapy
  - d. Maximizing drug dosages to control seizure activity
- 12. . Fluoxetine is FDA-approved to treat:
- a. schizophrenia
- b. mania
- c. anxiety
- d. depression
- 13. The neurotransmitter through which benzodiazepines exert their action is:
- a. norepinephrine
- b. epinephrine
- c. dopamine
- d. gamma amino butyric acid

- 14. Adverse effects of lithium that may persist with chronic therapy include all of the following EXCEPT:
- a. severe nausea and vomiting
- b. fine tremor
- c. polyuria
- d. hypothyroidism
- 15. The most effective drug for managing status epilepticus in paediatrics is:
  - a) Lamotrigine
  - b) Ethosuximide
  - c) Diazepam
  - d) Zonisamide
- 16. Pharmacologic effects of lorazepam include:
- A. hypnosis
- B. anterograde amnesia
- C. increased seizure threshold
- D. inhibition of prolactin secretion
- 17. A nurse is caring for a client who is taking phenytoin (Dilantin) for control of seizures. During data collection, the nurse notes that the client is taking birth control pills. Which of the following information should the nurse provide to the client?
  - A. Pregnancy should be avoided while taking phenytoin (Dilantin).
  - B. The client may stop taking the phenytoin (Dilantin) if it is causing severe gastrointestinal effects.
  - C. The potential for decreased effectiveness of the birth control pills exists while taking phenytoin (Dilantin).
  - D. The increased risk of thrombophlebitis exists while taking phenytoin (Dilantin) and birth control pills together.
- 18. The mechanism of carbidopa's action is:
  - a) Stimulating the synthesis, release, or reuptake of dopamine

- b)Inhibition of dopa decarboxilasec) Stimulating dopamine receptorsd) Selective inhibition of catecol-O-methyltransferase
- 19. A patient receiving an anticholinergic agent to treat nausea and vomiting should be taught to expect which of the following side effects?
  - a. Diarrhea
  - b. Lacrimation
  - c. Dry mouth
  - d. Bradycardia
- 20. The client has a PRN prescription for loperamide hydrochloride (Imodium). The nurse understands that this medication is used for which condition?
  - A. Constipation
  - B. Abdominal pain
  - C. An episode of diarrhea
  - D. Hematest-positive nasogastric tube drainage

## **SHORT ANSWER QUESTIONS (40 MARKS)**

1 Outline three (3) clinical indications of metronidazole. (4 ½ marks)

2. Describe the mechanism of action of local anaesthetic drugs. (3 marks)

3. The NSAIDs are an important class of drugs for relieving pain and inflammation.

a) Describe their mechanism of action, (2 marks)

b) Outline four (4) clinical uses. (4 marks)

c) State two (2) side effects associated with them. (2 marks)

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- 4. Outline any three broad spectrum anthelmintics giving example of two helminthes they are active against (6 marks)
- 5. State three classes of drugs you would use in management of a patient with asthma indicating the rationale behind using them. (6 marks)
- 6. Outline three (3) classes of antiretroviral drugs specifying their mechanism of action. (6 marks)
- 7. Briefly explain three classes of drugs used in management of depression clearly outlining their mechanism of action.  $(7 \frac{1}{2} \text{ marks})$

## **ESSAY QUESTIONS (40 MARKS)**

- 1. A 58 years old female patient is admitted in medical ward with diagnosis of hypertension. Several classes of drugs are used for its management.
- a. Explain how Renin-Angiotensin-Aldosterone System helps in controlling blood pressure (5 marks)
- b. Discuss four classes of drugs used in management of hypertension (20 marks)
- 2. Give a detailed account of any three (3) classes of drugs used in management of diabetes mellitus. (15 marks)

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