



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

**MAIN EXAMINATION**

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SEPTEMBER – DECEMBER 2020 TRIMESTER

SCHOOL OF NURSING

REGULAR PROGRAMME

NUR 210: CLINICAL PHARMACOLOGY II

Date: DECEMBER 2020

Duration: 3Hours

**INSTRUCTIONS:**

1. Answer all questions
2. Candidates are advised not to write on the question paper
3. Candidates must hand in their answer booklets to the invigilator while in the examination room

**SECTION A: MULTIPLE CHOICE QUESTIONS**

**(20 Marks)**

1. A 65-year-old male patient is prescribed an ACE inhibitor for the treatment of hypertension. Which medication below is an ACE inhibitor?

- a) Metoprolol
- b) Benazepril
- c) Losartan
- d) Amlodipine

2. Which statement below CORRECTLY describes how ACE Inhibitors work?

- a). This group of medications does not, inhibit the renin-angiotensin-aldosterone system (RAAS).

- b) ACE Inhibitors prevent the conversion of Angiotensin I to Angiotensin II.
  - c) ACE Inhibitors prevent Angiotensinogen from converting to Angiotensin I.
  - d) ACE Inhibitors have a positive chronotropic and negative inotropic effect on the heart.
3. A nurse notes that a client with schizophrenia and receiving an antipsychotic medication is having uncontrolled movement of the lips and tongue. The nurse determines that the client is experiencing?
- a) Hypertensive crisis
  - b) Parkinsonism
  - c) Tardive dyskinesia
  - d) Neuroleptic malignant syndrome
4. A client with Schizophrenia has been started on medication therapy with clozapine (clozaril). A nurse assesses the results of which laboratory study to monitor for adverse effect related to this medication
- a) Platelet
  - b) White blood cell
  - c) Liver function studies
  - d) Random blood sugar
5. A patient is experiencing heparin overdose. Which medication would the nurse prepare to administer?
- a) Vitamin K
  - b) Factor VIII
  - c) Antihistamine
  - d) Protamine sulfate
6. Which long-acting insulin mimics natural, basal insulin with no peak action and a duration of 24 hours?
- a) Insulin glulisine

- b) Insulin glargine
- c) Regular insulin
- d) NPH insulin

7. Which oral hypoglycemic drug has a quick onset and short duration of action, enabling the patient to take the medication 30 minutes before eating and skip the dose if he or she does not eat?

- a) Pioglitazone
- b) Repaglinide
- c) Acarbose
- d) Metformin

8. An infant is ordered a scheduled dose of Digoxin. The patient's apical pulse rate is 78 bpm. The nurse would:

- a) Administer the dose as ordered
- b) Hold the dose and reassess the apical pulse rate in 1 hour
- c) Skip this dose but administer the next scheduled dose
- d) Hold the dose and notify the physician

9. Antiviral drug to have anti-Parkinson's properties

- a) Procyclidine
- b) Pergolide
- c) Amantadine
- d) Levodopa

10. Reason that dopamine itself is not used to treat in Parkinson's disease:

- a) too expensive
- b) the problem is cholinergic in nature
- c) dopamine does not cross the blood-brain barrier
- d) levodopa has a higher affinity for the D2 receptor

11.NSAIDs combat fever by inhibiting which prostaglandin?

- a) Prostaglandin E2
- b) Prostaglandin I2
- c) Prostaglandin D2
- d) Prostaglandin F2

12.NSAIDs increase the risk of CNS adverse effects when taken with which group of antibiotics?

- a) Macrolides
- b) Penicillins
- c) Aminoglycosides
- d) Quinolones

13.The nurse is caring for of a client who is receiving chemotherapy. Which of the following would be expected as a result of the massive cell destruction that occurred from the chemotherapy?

- a) Leukopenia.
- b) Anemia
- c) Thrombocytopenia.
- d) Hyperuricemia.

14.A client with a sarcoma is receiving Bleomycin (Blenoxane). The nurse in charge for the client expects the physician to order which diagnostic procedure?

- a) Pulmonary function studies (PFT's).
- b) Stress test.
- c) Cranial x-ray.
- d) Electrocardiogram (ECG).

15. Antilipid medication -- structural analog of HMG-CoA intermediate

- a) cholestyramine (Questran, Questran Light)
- b) gemfibrozil (Lopid)
- c) pravastatin (Pravachol)
- d) niacin (vitamin B3)

16. A client with tonic-clonic seizure is receiving Phenobarbital (Luminal) and Valproic acid (Depakene). The nurse tells the client that:

- a) Valproic acid decreases phenobarbital metabolism
- b) Valproic acid increases phenobarbital metabolism
- c) There is no interaction between the two
- d) Increase the dosage of the two medications

17. Patients taking MAOIs have the tendency to experience hypertensive crisis especially during an interaction with other drugs such as epinephrine. Which of the following is a sign of hypertensive crisis?

- a) Orthostatic hypotension
- b) Diplopia
- c) Delay in ejaculation
- d) Hair loss

18. A client taking lithium carbonate (Lithobid) started complaining of nausea, vomiting, diarrhea, drowsiness, muscle weakness, tremor, blurred vision and ringing in the ears. The lithium level is 2 mEq/L. The nurse interprets this value as:

- a) Normal level
- b) Toxic level
- c) Below normal
- d) Above normal level

19. A congestive heart failure patient asks the nurse for how long he will be on diuretics. The best response the nurse should give is:

- a) "As you urinate more, you will need less medication to control fluid."
- b) "You will have to take this medication for about a year."
- c) "The medication must be continued so the fluid problem is controlled"
- d) "Please talk to your physician about medications and treatments."

20. Meperidine hydrochloride (Demerol) is given to a client who is experiencing post-operative pain. Which of the following are the side effects of the medication?

- a) Hypertension
- b) Diarrhea
- c) Urinary retention
- d) Tachycardia

**SHORT ANSWER QUESTION (SAQ)**

**(40 MARKS)**

- 1. Outline five adverse effects of Heparin **(5 marks)**
- 2. State five nursing considerations for patients on Lithium Carbonate **( 5marks)**
- 3. State five indications of insulin therapy **( 5 marks)**
- 4. Outline five toxic effects of Local anesthetic agents on cardiovascular system **(5 marks)**
- 5. Mrs .X who has been suffering from insomnia, has been prescribed with Lorazepam (Ativan) for a week
  - a) Describe the pharmacokinetics of Lorazepam (Ativan) **(5marks)**
  - b) State four therapeutic uses of the Lorazepam (Ativan) **( 4 marks)**
- 6. Outline five adverse effects of Phenytoin **(5 marks)**
- 7. Describe the classification of cytotoxic's according to the mechanism of action **(6 marks)**

**LONG ANSWER QUESTION (LAQ)**

**(40 MARKS)**

1. a) Describe the classification of Anti-hypertensive drugs based upon the mechanism of action, with an example of a drug for each classification **(10 Marks)**

b) Describe the malignant hypertension (4marks) and its pharmacological management **(6 marks)**

2. Mrs. x is diagnosed with terminal cancer of colon and is on palliative care and Morphine has been administered as part of pain management

a) Describe the mechanism of action of Morphine **(3 marks)**

b) Outline five adverse effects of Morphine **(5 marks)**

b) Describe nursing considerations for patients on morphine treatment **(12 marks)**

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