



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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

**REGINA PACIS INSTITUTE OF HEALTH SCIENCES**

**MAIN EXAMINATION**

**AUGUST – DECEMBER 2017 TRIMESTER**

**FACULTY OF SCIENCES**

**DEPARTMENT OF NURSING**

**REGULAR PROGRAMME**

**UNUR / NUR 205: CLINICAL PHARMACOLOGY I**

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**Date: DECEMBER 2017**

**Duration: 3 Hours**

**INSTRUCTIONS: Answer ALL Questions**

**PART -I: MULTIPLE CHOICE QUESTIONS (MCQs) (20 MARKS)**

Q1. The drug formulation that is absorbed fastest is:

- a) Liquids
- b) Powders
- c) Capsules
- d) Tablets

Q2. Match the correct description in column A with the name in column B

**COLUMN A**

- I. Decreased response to a drug as a result of continuous exposure
- II. Capacity of a drug to produce an effect and it refers to the maximum effect
- III. Compulsion to continue using the drug
- IV. Produced unintentionally during the treatment of client

**COLUMN B**

- A. Tolerance
- B. Intolerance
- C. Potency
- D. Dependence
- E. Iatrogenic

Q3. What is the reason of complicated penetration of some drugs through the blood brain barrier?

- a) High lipid solubility of a drug
- b) High presence of Gap Junctions in the capillaries
- c) High presence of tight junctions in the capillary, membranes
- d) High hydrophilic characteristics of the drug

Q4. A factor that effects a drug's volume of distribution:

- a) Drugs half life
- b) Drug potency
- c) Drug pka
- d) Extent of drug-plasma protein binding

Q5. The term side effects refers to :

- a) Arepharmacological effects produced with therapeutic dose of the drug
- b) Excessivepharmacological action of the drug due to over dosage or prolonged use
- c) Indirectconsequences of primary action of drug
- d) Drug reactions that are unique to the individual

Q6. Match the antiretroviral drug with the associated side effect

COLUMN A

- 1. Zidovudine
- 2. Nevirapine
- 3. Stavudine
- 4. Didanosine

COLUMN B

- 1. Anemia
- 2. Lipodistrophy
- 3. Steven Johnsons Syndrome
- 4. Pancreatitis

- Q7. The following anti-tuberculosis drug is associated with peripheral neuropathy:-
- Rifampicin
  - Isoniazid
  - Streptomycin
  - Pyrazinamide
- Q8. A patient with which of the following condition may experience a fatal side effect of theophylline ?
- Diabetes
  - Renal Disease
  - Cardiac disease
  - Liver disease
- Q9. The category of drugs that relieves constipation by drawing of extravascular space to the intestinal lumen is :
- Bulk forming agents
  - Lubricants
  - Hyperosmotic agents
  - Stimulant laxatives
- Q10. Antitussives are indicated to:
- Relieve rhinitis
  - Control productive cough
  - Relieve dry cough
  - Encourage removal of secretions
- Q11. A patient with nausea as a side effect of chemotherapy will benefit from Which drug,
- Motoclopramide
  - Cimetidine
  - Famotidine
  - Tagamet
- Q12. Indicate true or false
- Aluminium based antacids cause diarrhoea
  - Ranitidine is a drug used in management of peptic ulcer
  - Sulfadoxine- pyrimithamine is indicated for treatment of severe malaria
  - Insulin is associated with lipodystrophy
- Q13. The pharmacy and poisons act for drug regulation is
- Cap 247
  - Cap 257

- c) Cap 244
- d) Cap 245

Q14. The type of drug formulation that encloses granules in a gelatin container is referred to as:-

- a) Pill
- b) Capsule
- c) Syrup
- d) Tablet

Q15. Indicate whether the statements are true or false:

- i) Metabolism always results to an inactive metabolite
- ii) Not all orally given drugs undergo significant first pass effect

Q16. A competitive antagonist is a substance that:

- a) Interacts with receptors and produces submaximal effect
- b) Binds to the same receptor site and progressively inhibits the agonist response
- c) Binds to the nonspecific sites of tissue
- d) Binds to one receptor subtype as an agonist and to another as an antagonist

Q17. The main method of renal elimination of a drug is by

- a) Passive distal excretion
- b) Active glomerular filtration
- c) Selective reabsorption
- d) Active secretion into the collecting duct

Q18. Pharmacodynamics is defined as:

- a) The effect our body has on drugs
- b) The action of the liver on drug molecules
- c) The effect a drug has on our bodies
- d) The movement of a drug around the body

Q19. The characteristics of the intramuscular route of drug administration is that:

- a) Only water solutions can be injected
- b) Oily solutions can be injected
- c) Opportunity of hypertonic solution injections
- d) The absorption is slower than the oral administration

Q20. The disulfiram symptoms are associated with

- a) Penicillin

- b) Cephalosporins
- c) Tetracyclines
- d) Aminoglycosides

**PART-II: SHORT ANSWER QUESTIONS (SAQs) (40 MARKS)**

- Q1. Describe the drug *Gentamicin* in reference to the following subheadings
- i) Dose
  - ii) Indications
  - iii) 2 specific Nursing responsibilities
  - iv) Side effects **(8 marks)**
- Q2. Explain the concept of drug half-life **(5 marks)**
- Q3. Explain two factors that affect the bioavailability of drugs **(4 marks)**
- Q4. State the four fundamental mechanisms of action of drugs **(4 marks)**
- Q5. State three challenges of incorporating herbal therapy into conventional drug therapy **(3 marks)**
- Q6. Outline six factors to consider prior to commencement of antiretroviral therapy **(6 marks)**
- Q7. Other than the five rights state five (5) nursing considerations when administering tetracycline's **(5 marks)**
- Q8. State five health messages that you would give to a patient receiving antibiotics **(5 marks)**

**PART-III: LONG ANSWER QUESTIONS (LAQs) (40 MARKS)**

- Q1. Patient Fatuma is diagnosed with asthma .
- i) Explain five factors that affect the individual drug response to drugs **(10 marks)**
  - ii) Discuss the classification of asthma drugs giving an example in each class **(10 marks)**
- Q2. Discuss the pharmacodynamics drug processes **(20 marks)**

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