



(University of Choice)

MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)
REGULAR UNIVERSITY EXAMS

SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL
SCIENCES

UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR
SECOND YEAR FIRST TRIMESTER –DL

FOR THE DEGREE OF BACHELOR OF SCIENCE IN NURSING
MIDWIFERY

COURSE CODE: NMM 125
COURSE TITLE: CLINICAL PHARMACOLOGY AND
THERAPEUTICS

DATE: 20th/APRIL/2022

time: 11:30am—2:30pm

INSTRUCTIONS TO CANDIDATES

All questions in the three sections (A, B and C) are compulsory

DURATION: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This paper consists of 4 (four) printed pages. Please turn over

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQS): 20MARKS

Choose the correct answer

1.is treatment of disease through the administration of drugs.
 - A. Pharmacology
 - B. Pharmacokinetics
 - C. Pharmacodynamics
 - D. Pharmacotherapeutics
2. What the drug does to the body is termed as:
 - A. Gastrointestinal effects
 - B. Nephrotoxic effects
 - C. Neurotoxic effects
 - D. Pharmacodynamics
3. Principles of drug action:
 - A. Restlessness and nervousness in all drugs administered
 - B. Depression, absorption
 - C. Depression, irritation and cytotoxic action
 - D. Absorption, distribution and irritation
4. Any substance or product that is used or is intended to be used to modify or explore physiological systems or pathological states for the benefit of the recipient
 - A. Poison
 - B. Drug
 - C. Expect the cough to worsen during the first few days of treatment.
 - D. Needs frequent sips of water and sugarless hard candy may diminish coughing.
5. Pharmacological activities of many drugs are reduced or abolished by:
 - A. Enzymatic processes and drug metabolism is one of the primary mechanisms by which drugs are inactivated.
 - B. Enzymatic processes and drug metabolism is one of the primary mechanisms by which drugs are not inactivated
 - C. Enzymatic processes and stressful situations
 - D. Drug metabolism is one of the primary mechanisms by which drugs are inactivated.

6. Kidneys are involved in the elimination of virtually every:
- A. Drug and poison
 - B. Drug metabolite
 - C. Prodrug
 - D. Poison
7. When discontinuing the use of an antihypertensive drug, the nurse's role is to:
- A. Monitor the blood pressure every hour for 8 hours after the drug therapy is discontinued
 - B. Ensure a gradual decrease of Blood Pressure during a period of 2 to 4 days to avoid rebound hypertension
 - C. Check the blood pressure and pulse every 30 minutes after discontinuing the drug therapy
 - D. Taper the dosage of the drug during a period of 2 weeks to avoid a return of hypertension
8. Fecal softeners relieve constipation by:
- A. Stimulating the walls of the intestine
 - B. Promoting the retention of sodium in the fecal mass
 - C. Promoting water retention in the fecal mass
 - D. Lubricating the intestinal walls
9. Bioavailability is :
- A. The difference between the amount of drug absorbed and the amount excreted
 - B. The proportion of the drug in a formulation that is found in the systemic circulation
 - C. The AUC relating plasma concentration of drug to time after administration
 - D. Always identical with different formulations of the same drug
10. With regard to Biotransformation:
- A. Phase one reactions always precede phase two reactions
 - B. Skin is an organ involved in drug biotransformation
 - C. Water conjugation is a phase one reaction
 - D. CYP2D6 accounts for the majority of P450 activity
11. Principles of pharmacology include:
- A. Efficacy is the maximum response produced by a drug

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- B. Poor blood glucose control
 - C. The need for an increase in the insulin dosage
 - D. The patient is at increased risk for hypoglycemia in rare case
12. Age associated changes in pharmacokinetics include:
- A. Reduction in creatinine clearance in 2/3 population
 - B. Decreased body fat and Moon face, hirsutism
 - C. Increase body water and pallor
 - D. A greater reduction in conjugation compared with oxidation
13. One of the most important assessment for the nurse to do when a child is receiving medications is:
- A. Blood pressure, pulse, and respiration
 - B. Diet history
 - C. Height and weight
 - D. Measurement of abdominal girth
14. Drug nomenclature involves:
- A. Non- Proprietary name, chemical name and Proprietary name
 - B. Trade name, chemical name & Proprietary name
 - C. Brand name chemical name and Proprietary name
 - D. Pharmaceutical name and pharmacokinetics
15. Time a drug takes for its plasma concentration to be reduced to half of its original value is:
- A. Therapeutic index
 - B. Drug error
 - C. Near miss
 - D. Half-life
16. Basic types of drug action can be broadly classed as:
- A. Stimulation
 - B. Depression with action
 - C. Skin Irritation and blood circulation
 - D. Cytotoxic action and stimulation
17. Mechanisms of drug includes:
- A. Physical or chemical property
 - B. Physical property
 - C. Enzymes, physical and chemical properties
 - D. Ion channels and metals

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18. Factors that modify drug action are either:
- Quantitative and optional
 - Qualitative and quantitative
 - Metal based and quantitative
 - Pethidine addiction and qualitative
19. Inducers of drug metabolism include:
- Exposure to insecticides and carcinogens
 - carcinogens and alcohol
 - Tobacco smoke and naloxolone
 - Charcoal boiled meat and milk
20. Adverse Drug Reaction can be minimized but not altogether eliminated by:
- Avoiding all inappropriate use of drugs in the context of patient's clinical condition.
 - Not using appropriate dose, route and frequency of drug administration.
 - Consideration of patient's previous drug history excluding allergies.
 - Ruling out possibilities of drug interactions when more than one drug is not prescribed.

SECTION B: SHORT ANSWER QUESTIONS (SAQs); 40 MARKS

Answer all questions in this section

- Describe eight factors that affect drug absorption and bioavailability (8 Marks)
- Explain the WHO criteria for selection of essential medicines (8 Marks)
- State eight factors that govern the choice of route administration of drugs (8 Marks)
- Describe the pharmacological principles in care of patients (8 Marks)
- Explain systemic cutaneous route of drug administration (8 Marks)

SECTION C: LONG ESSAY QUESTIONS (LEQs); 40 MARKS

Answer all questions in this section

- Describe ten specific rules of drug administration (20 Marks)
- Describe the ten (10) categories of drug adverse effects (20 Marks)

END