



(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
DL**

**COURSE CODE: NCD 211
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. Which of the following laboratory examinations would the nurse expect to be ordered for a patient taking aminophylline?

- A. Serum aminophylline levels
- B. Alanine aminotransferase
- C. Electrolytes
- D. Thyroid levels

2. During the administration of sympathomimetics to older adults there is an increased risk of:

- A. gastrointestinal effects
- B. nephrotoxic effects
- C. neurotoxic effects
- D. cardiovascular effects

3. When administering aminophylline, a xanthine derivative bronchodilating drug, the nurse monitors the patient for adverse reactions, which include.

- A. restlessness, nervousness
- B. hypoglycemia, hypothyroidism
- C. bradycardia, bronchospasm
- D. somnolence, lethargy

4. Which of the following statements is appropriate for the nurse to include in discharge instructions for a patient taking an antitussive?

- A. Increase the dosage if the drug does not relieve the cough.
- B. Limit fluids to less than 1000 mL each day.
- C. Expect the cough to worsen during the first few days of treatment.
- D. Frequent sips of water and sugarless hard candy may diminish coughing.

5. Which of these drugs would be prescribed for a patient with an acetaminophen over dosage?

- A. Acetylcysteine
- B. Guaifenesin
- C. Benzonatate

D. Dextromethorphan

6. The most indicative serum digoxin levels that a patient taking digoxin may be experiencing toxicity would be?

- A. 0.5 ng/mL
- B. 0.8 ng/mL
- C. 1.0 ng/mL
- D. 2.0 ng/mL

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. Anticholinergic drugs are prescribed for the treatment of peptic ulcers, the nurse observes the patient for which of the following adverse effects?

- A. Weight gain, increased.
- B. Edema, tachycardia
- C. Dry mouth, urinary retention
- D. Hypertension

10. During the administration of antacids to a patient who is taking other oral drugs, the nurse will:

- A. Administer the oral drugs with the other drugs
- B. Give the patient drugs 30 minutes before or after administration of other drugs
- C. Administer the drugs 2 hours before or after administration of other drugs
- D. Administer the drugs early morning and at bedtime

11. A glycosylated hemoglobin test result of 10% indicates:

- A. That diabetes is well controlled
- B. Poor blood glucose control
- C. The need for an increase in the insulin dosage
- D. The patient is at increased risk for hypoglycemia

12. Adverse reactions that would lead the nurse to suspect cushingoid appearance in a patient taking a corticosteroid:

- A. Moon face, hirsutism
- B. Kyphosis, periorbital edema
- C. Pallor of the skin, acne
- D. Exophthalmos

13. The most important assessment for the nurse to do when a child is receiving a growth hormone is?

- A. Blood pressure, pulse, and respiration
- B. Diet history
- C. Height and weight
- D. Measurement of abdominal girth

14. Hepatitis B vaccine recombinant produces what type of immunity?

- A. Passive immunity and naturally acquired active immunity
- B. Artificially acquired active immunity
- C. Passive immunity and a cell mediated immunity
- D. Cell-mediated immunity and passive immunity

15. Findings that would be most indicative to the nurse that the patient has thrombocytopenia:

- A. Nausea and Easy bruising
- B. Blurred vision and Easy bruising
- C. Headaches
- D. Easy bruising

16. An adverse reactions to the antineoplastic drugs that is most likely to affect the patient's mental health and self-esteem is?

- A. Hematuria

- B. Alopecia
- C. Nausea
- D. Diarrhea

17. One of the following is an indication for use of aspirin.

- A. Diarrhea
- B. Peptic ulcers
- C. Antiplatelet
- D. Asthma

18. Which one of the following is a partial agonist opioid?

- A. Tramadol
- B. Diamorphine
- C. Methadone
- D. Pethidine

19. Which one of the following is a specific antidote for benzodiazepine poisoning?

- A. Naloxone
- B. Methadone
- C. Codeine
- D. Flumazenil

20. Which one of the following antiemetic is effective in controlling cancer chemotherapy induced vomiting?

- A. Ondarsetron
- B. Metoclopramide
- C. Hyoscine
- D. Dicyclomine

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

1. Describe the mechanism of action of aspirin (8 Marks).
2. Describe the four major classes of oral hypoglycemic agents (8 marks).
3. Describe any four (4) adverse drug reactions of phenytoin. (8 marks)
4. Describe the pharmacological principles in care of patients (8 Marks)
5. Describe eight (8) adverse drug reactions of tricyclic antidepressants (8 Marks).

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

Q.1 Describe the basic principles of toxicology (20 Marks)

Q.2 Read the **Case Presentation** carefully and answer the question

A 35-year-old female with schizophrenia and insulin-dependent diabetes mellitus developed a severe oral *Candida* infection. She was being treated with pimozide for her psychosis and combined glargine insulin with short-acting insulins at meal times. She was started on itraconazole, 100 mg daily, and after a few days her oropharyngeal symptoms were improving. About five days into the treatment, she was brought into a local hospital Accident and Emergency Department with torsades de pointes (polymorphic ventricular tachycardia) that was difficult to treat initially, but which eventually responded to administration of intravenous magnesium and Direct Current (DC) cardioversion. There was no evidence of an acute myocardial ischaemia/infarction on post-reversion or subsequent ECGs. The patient's cardiac enzymes were not diagnostic of a myocardial infarction. Her electrolyte and magnesium concentrations measured immediately on admission were normal.

Question: Describe the likely cause of this patient's life-threatening dysrhythmia and how this could have been avoided (20 Marks)