

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF COMMUNITY HEALTH NURSING SCIENCE
FINAL EXAMINATION: MAY 2018

COURSE TITLE: PSYCHOPHARMACOLOGY

COURSE CODE: CMH 404

TIME ALLOCATED: 2 HOURS

TOTAL MARKS ALLOCATED: 75

INSTRUCTIONS:

- 1. PLEASE WRITE LEGIBLY**
- 2. THERE ARE THREE QUESTIONS IN THIS PAPER. PLEASE ANSWER ALL QUESTIONS**
- 3. USE THE PROVIDED ANSWER BOOKLET FOR ALL YOUR ANSWERS**
- 4. START A NEW QUESTION IN A NEW PAGE**
- 5. MAKE SURE THAT ALL YOUR ANSWERS ARE NUMBERED CORRECTLY**
- 6. FOR MULTIPLE CHOICE, PLEASE USE CAPITAL LETTERS FOR YOUR ANSWERS.**

DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR OR HIS/HER REPRESENTATIVE

QUESTION ONE

Multiple Choice Questions. For each of the following questions, each question has only one correct option as an answer. Choose the most correct answer. Write clearly the question number and the letter that corresponds with the most appropriate or correct answer, e.g. 50. J. Each correctly answered question carries one (1) mark.

1. Which of the following is not true of typical antipsychotics?
 - A. They are also known as first generation antipsychotics
 - B. They have more extrapyramidal side effects compared to atypical antipsychotics
 - C. They are less effective on negative symptoms of schizophrenia
 - D. They reduce violent behaviour and agitation by increasing the production of dopamine

2. Imipramine is an example of an:
 - A. Atypical antipsychotic drug
 - B. Atypical antidepressant drug
 - C. Typical antidepressant drug
 - D. Tricyclic antidepressant drug

3. The main reason that fluoxetine and carbamazepine should not be administered together is:
 - A. Fluoxetine increases the half-life of carbamazepine
 - B. Carbamazepine increases the serum levels of fluoxetine
 - C. They are both CNS depressants, thus may cause severe drowsiness
 - D. None of the above

4. In which situation would benzodiazepines be prescribed appropriately?
 - A. Long-term treatment of PTSD, convulsive disorder and alcohol withdrawal
 - B. Short-term treatment of generalised anxiety disorder, alcohol withdrawal and preoperative sedation
 - C. Short-term treatment of OCD, skeletal muscle spasms and essential hypertension
 - D. Long-term treatment of panic disorder, alcohol dependence and bipolar disorder-manic

5. refers to the concurrent use of more than one drug of the same class in the management of patients with mental illness:
 - A. Polypharmacy
 - B. Pharmacokinetics
 - C. Pharmacodynamics
 - D. Monotherapy

6. In rare instances, may result in high prolactin levels causing gynaecomastia.
- A. Fluphenazine deaconate
 - B. Flupenthixol decanoate
 - C. Bupirone
 - D. Olanzapine
7. In pharmacokinetics, ----- refers to the situation where the overall intake of a drug is in dynamic equilibrium with its elimination.
- A. Steady state
 - B. Half life
 - C. Plasma Concentration Level
 - D. Therapeutic state
8. In practice, the situation referred to in Q7 is achieved after how many half-lives of a drug?
- A. 2-3
 - B. 3-4
 - C. 4-5
 - D. 5-6
9. Tricyclic antidepressants act by blocking:
- A. Dopaminergic receptors
 - B. GABA receptors
 - C. Cholinergic receptors
 - D. Reuptake of serotonin and norepinephrine
10. Benzodiazepines primarily act on:
- A. Dopamine receptors
 - B. Serotonin receptors
 - C. 5-HT receptors
 - D. GABA receptors
11. Pseudoparkinsonism is a term used to refer to:
- A. Drug induced parkinsonism
 - B. Head injury induced parkinsonism
 - C. Post encephalitic parkinsonism
 - D. Parkinsonism with depression
12. Extrapyramidal effects include all of the following, *except*:
- A. Agnosia

- B. Dystonia
- C. Tardive dyskinesia
- D. Pseudoparkinsonism

13. Therapeutic effects of typical antipsychotics are predominantly due to blockade of:

- A. GABA receptors
- B. Serotonergic receptors
- C. Norepinephrine receptors
- D. Dopaminergic receptors

14. Which of the following drugs is commonly associated with orthostatic hypotension?

- A. Bupropion
- B. Lithium
- C. Fluoxetine
- D. Chlorpromazine

15. ----- is a subjective feeling of motor restlessness which develops following treatment with antipsychotics:

- A. Agnosia
- B. Dystonia
- C. Dyskinesia
- D. Akathesia

16. Which of the following central dopaminergic pathway is associated with hyperprolactinaemia and its consequences?

- A. Tuberoinfundibular
- B. Mesolimbic
- C. Nigrostriatal
- D. Mesocortical

17. The term ataractic refers to a drug that:

- A. cause extrapyramidal side effects
- B. induces sleep
- C. has a calming effect
- D. induces drowsiness

18. Which of the following drugs is indicated for the treatment of refractory or resistant schizophrenia?

- A. Clozapine
- B. Thioridazine
- C. Haloperidol

D. Lithium

19. Which of the following drugs is particularly associated with precipitation and worsening of diabetes mellitus:

- A. Haloperidol
- B. Amitriptyline
- C. Carbamazepine
- D. Olanzapine

20. Which drug in the SSRI group of antidepressant has a half-life of 2-4 days:

- A. Paroxetine
- B. Sertraline
- C. Fluoxetine
- D. Escitalopra

B. Fill in the descriptive missing name for the following antipsychotic drugs (1 mark each).

	GENERIC NAME	TRADE NAME
21.	clozapine	Clozaril
22.	Olanzapine	Zyprexa
23.	Risperidone	Risperdal
24.	Fluphenazine decoanate	Proxilin
25.	Imipramine	Tofranil

[TOTAL MARKS: 25]

QUESTION TWO

Velaphi presents to the National Psychiatric Referral Hospital for the first time and is diagnosed with Bipolar I-mania single episode. As part of his treatment, the Psychiatrist prescribes carbamazepine 400mg PO nocte and 200mg PO mane.

Discuss carbamazepine under the following headings:

- a. The indication for carbamazepine in this case (2 marks)
- b. The mechanism of action for the drug in this case (4 marks)
- c. The nursing implications (8 marks)
- d. What education would you provide to Velaphi and his family with regards to his treatment? (10 marks)
- e. Under which class of drugs does carbamazepine fall? (1 mark).

[TOTAL MARKS: 25]

QUESTION THREE

Clozapine has superior efficacy compared with other antipsychotic agents in the treatment of resistant schizophrenia. However, it carries serious risks including Agranulocytosis, seizures and metabolic adverse effects. In addition studies have shown that Clozapine can precipitate or worsen Obsessive Compulsive Disorder.

- A. Under which class of neuroleptics does clozapine fall? (1 mark)?
- B. You are a mental health nurse in Hospital X where almost every patient diagnosed with schizophrenia is prescribed Clozapine. As an advocate for patients, what key points would you emphasize to the psychiatrist in addressing the issue? (6 marks).
- C. Outline the nursing management of a patient prescribed clozapine. Give a rationale for your interventions. (10 marks).
- D. One of your roles as a mental health nurse is “to monitor the therapeutic effect of drugs” administered to clients. What does the statement mean? (2 marks)?
- E. Drug B has a half-life of 3 hours. If the initial plasma level of the drug, given as a single dose, is 3600mg/L, what will its plasma level be after 10 hours? Show your calculation step by step. (6 marks).

[TOTAL MARKS: 25]