

UNIVERSITY OF ESWATINI
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF COMMUNITY HEALTH NURSING SCIENCE
FINAL EXAMINATION: AUGUST 2020

COURSE TITLE: PSYCHOPHARMACOLOGY

COURSE CODE: CHN 404

TIME ALLOWED: 2 HOURS

TOTAL MARKS ALLOCATED: 75

INSTRUCTIONS:

- 1. PLEASE WRITE CLEARLY AND LEGIBLY**
- 2. PLEASE ANSWER ALL QUESTIONS**
- 3. USE THE PROVIDED ANSWER BOOKLET FOR ALL YOUR ANSWER**
- 4. START ANEW QUESTION ON A NEW PAGE**
- 5. MAKE SURE THAT ALL YOUR ANSWERS ARE NUMBERED CORRECTLY**

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

QUESTION 1.

Multiple Choice. 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 20. B. Each correctly answered question has one (1) mark.

1. Which subspecialty of pharmacology deals with medication affecting the brain and behavior?
 - a. Pharmacodynamics
 - b. Pharmacokinetics
 - c. Psychopharmacology
 - d. Pharmaceutics

2. In pharmacology drug is a chemical substance used for:
 - a. Prophylactic purpose
 - b. Diagnostic purpose
 - c. Experimental purpose
 - d. All

3. Which of the following is **not true** about secondary effect of drugs?
 - a. It is also called the side effect of the drug.
 - b. It may be desirable or undesirable effect
 - c. It is often unavoidable
 - d. All of the above are true

4. Which one of the following is **not true**?
 - a. Pharmacodynamics is the study of biochemical and physiological effects of the drugs.
 - b. Pharmacodynamics deals with what the drug does to the body
 - c. Pharmacodynamics deals with what the body does to the drug
 - d. Drugs do not create effects but modulate intrinsic physiological functions

5. Barbiturates can be prescribed as:
 - a. Sedatives
 - b. Anesthetics
 - c. Hypnotics
 - d. Anticonvulsant
 - e. All

6. What is the mechanism of action of Monoamine oxidase inhibitors (MAOIs) or Tricyclic anti-depressants (TCAs) to reduce anxiety?
 - a. Increase the concentration of serotonin in the synaptic cleft
 - b. Down regulate post synaptic 5-HT_{1A,2} serotonergic receptors
 - c. Inhibit tyrosine hydroxylase enzyme to decrease the concentration of norepinephrine
 - d. All

7. Which of the following **is true** about Hypnotic effect of drugs?
 - a. They Produce drowsiness
 - b. They induce sleep
 - c. At lower dose may act as sedative
 - d. All

8. Which of the following is true about barbiturates?
 - a. It was first created in 1864.
 - b. It is a combination of urea from animal and malonic acid from apples
 - c. It was first used to put dogs to sleep.
 - d. All are true.

9. The probable nursing diagnosis in a patient taking barbiturates is:
 - a. Impaired gas exchange
 - b. Disturbed thought process
 - c. Risk of injury
 - d. All

10. Which of the following **is not true** about benzodiazepines?
 - a. They are safe and effective.

- b. Completely absorbed from the gut.
- c. Are the most widely used anxiolytic drugs
- d. They produce greater physical dependence

11. Benzodiazepines can be used as:-

- a. Sedative hypnotics
- b. Anticonvulsant
- c. Muscle relaxant
- d. All

12. Select the false sentence about Buspirone.

- a. Has less psychomotor impairment than benzodiazepine
- b. Has a high abuse liability
- c. Also used for sedation and induction of sleep
- d. Used to reduce anxiety and aggression

13. Antipsychotic drug with the least extrapyramidal side effects:

- a. a. Haloperidol
- b. b. Chlorpromazine
- c. c. Clozapine
- d. d Fluoperazine

14. An example of atypical antipsychotic agent:

- a. Chlorpromazine
- b. Haloperidol
- c. Olanzapine
- d. Fluoperazine

15. What is the chlorpromazine (100mg) equivalent oral dose of haloperidol?

- a. 100mg
- b. 20mg
- c. 2mg
- d. 50mg

16. A patient reports fever, tremor, fluctuating level of BP and HR and semi consciousness, after 2 weeks of starting antipsychotic therapy. Which of the following intervention is most important?
- Discontinue the antipsychotic and conduct WBC and differential counts.
 - Hospitalize the patient for observation
 - Inform the patient that it is common to develop fever & sore throat when taking this drug
 - Treat the patient with a broad-spectrum antibiotic and continue the therapy
17. A drug which is commonly associated with orthostatic hypotension is:
- Lithium
 - Fluoxetine
 - Chlorpromazine
 - Olanzapine
18. SSRI's are more frequently used than tricyclic antidepressants because:
- They are more widely available
 - They have a longer onset period
 - They have fewer side effects
 - They are less expensive
19. Side effects of which antidepressant includes insomnia?
- Imipramine
 - Fluoxetine
 - Venlafaxine
 - Clomipramine
20. One of the statements is **not true** about Haloperidol. Which one is it?
- It is an older antipsychotic agent.
 - Has no anticholinergic effects
 - Due to its strong central anti-dopaminergic action, it is classified as a low potent antipsychotic agent.
 - It is approximately 50 times more potent than chlorpromazine
21. Atypical antipsychotic drugs are:-
- Drugs that induce very low Extra Pyramidal Side effects (EPSE).
 - Drugs that Block D2 receptor and 5-HT receptor.
 - A and B
 - None

22. Which of the following statements is true about Risperidone?

- a. Atypical antipsychotic drug
- b. Predominantly blocks D2 and 5-HT
- c. Lack of anti-cholinergic activity makes it better for youth and elderly
- d. All

23. Which of the following typical antipsychotic drug is contraindicated for the treatment of psychosis in epileptic patients?

- a. Chlorpromazine
- b. Haloperidol
- c. Fluphenazine
- d. None

24. All of the following are adverse effects of Benzodiazepines **except**?

- a. CNS depression
- b. Insomnia
- c. Respiratory depression
- d. Anterograde amnesia

25. Which one of the following is **not atypical antidepressant**?

- a. Sertraline
- b. Trazodone
- c. Mianserin
- d. Tianeptine

26. For which of the following clinical indication antidepressant medication used?

- a. Major depression
- b. Enuresis
- c. Migraine
- d. All

27. Fluoxetine is the most widely used SSRI drugs in low and middle income countries. which one of the following is **not true** about fluoxetine?

- a. It is taken with food to minimize the possible nausea.
- b. For treatment of depression the initial dose is usually 10 to 20mg/day.
- c. Fluoxetine is usually given at night
- d. Fluoxetine is usually given in the morning

28. Select the **false sentence** about pharmacokinetics of Lithium.

- a. Lithium is absorbed slowly and well during oral administration.
- b. Lithium is excreted from kidney in the same way as Na⁺
- c. A and B
- d. None

29. Which of the following antiepileptic drug is the primary agent for absence seizure?

- a. Ethosuximide
- b. Valproate
- c. Phenytoin
- d. Carbamazepine

30. Which atypical antipsychotic drug is used for treatment of bipolar disorder?

- a. Olanzapine
- b. Clozapine
- c. Risperidone
- d. All

QUESTION TWO

A. State whether the statement below are true or false. Write the alphabet representing your answer against the question, e.g.3=T. Each correct answer has 1 mark.

1. Pharmacological interventions that suppress one sort of anxiety do not exert the same anxiolytic effects in other anxiety disorders.
2. Norepinephrine (NE) in major brain regions plays a major role in modulating anxiety.
3. Therapeutic benefit and side effect profile of neuroleptic drugs depends on actions at different receptor subtypes with in different brain pathways.
4. Long-term use of hypnotics is rational and not dangerous medical practice.
5. For treatment of status epileptics-diazepam is the drug of choice
6. Lithium is contraindicated during pregnancy.
7. SSRIs are the first line treatment for depression.
8. Pseudo parkinsonism occurs most often in women and the elderly following initiation of antipsychotics
9. Phenytoin exerts ant seizure activity without causing general depression of the CNS.
10. Methylphenidate is used for treatment of Narcolepsy and ADHD.

B. Matching, write the alphabet that represents your answer from column B against the question number in column A. e.g. 12= C. Each correct answer has 1 mark.

	Column A	Column B
1	Older sedative hypnotics	A. Chloral hydrates
2	Newer sedative hypnotics	B. Buspirone
3	Benzodiazepine antagonist	C. Flumazenil.
4	More sedative Tricyclic antidepressant	D. Imipramine
5	Less sedative tricyclic antidepressant	E. Amitriptyline
6	Irreversible MAOIs	F. Phenelzine
7	Reversible MAOIs	G. Moclobemide
8	Used for smoking cessation	H. Venlafaxine
9	Serotonin & NA reuptake inhibitor	I. Bupropion
10	Newer antiepileptic drug	J. Lamotrigine

[25 marks]

QUESTION THREE

- 1. Why administration of atypical antipsychotic drugs preferred than typical antipsychotic drugs? (6 marks)**
- 2. What are factors that affect the choice of antiepileptic drugs? (6marks)**
- 3. Mr. Mbo present to the psychiatric hospital and is diagnosed with major depressive disorder. As part of psychiatric treatment, the psychiatrist prescribed 20mg of Fluoxetine. Discuss the following nursing process.**
 - a. What are the possible nursing diagnosis that can be formulated in the use of Fluoxetine for this therapy? (3 marks)**
 - b. Write all possible nursing intervention that you are expected to provide for Mr. Mbo. (10 marks)**

[25 marks]