



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2011/2012
SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE IN NURSING AND PUBLIC HEALTH

HNS 218(N): CLINICAL PHARMACOLOGY AND THERAPEUTICS III

DATE: Thursday, 29th March, 2012

TIME: 8.00 a.m. – 10.00 a.m.

REGISTRATION NO:.....

INSTRUCTIONS:

Answer ALL questions in this paper. Each question in section A is 1mark, and marks to each question in part B and C are indicated next to each question.

SECTION A- MCQ- Circle the correct response

1. One of the following statements is True regarding typical neuroleptics:
 - A. They block both serotonin and dopamine
 - B. All neuroleptic can reduce the hallucinations and delusions associated with schizophrenia
 - C. They eliminate the fundamental and chronic thought disorder
 - D. Relapse of psychotic symptoms occur immediately after discontinuation of antipsychotics
2. Regarding sedative hypnotics; one of the following is **incorrect**:
 - A. Low doses of Benzodiazepines can be used to relax the spasticity of skeletal muscle
 - B. Traces are detectable in breast milk
 - C. Flumazenil can be used to reverse the CNS depressant effects of benzodiazepines
 - D. The targets for benzodiazepine actions are the GABA_A receptors
3. The following statements regarding antiparkinsonians are correct **except**:
 - A. Food enhances absorption of levodopa from the gut

- B. Dopamine readily cross the blood-brain barrier
 - C. vitamin pyridoxine (B₆) increases the peripheral breakdown of levodopa
 - D. Antipsychotic drugs are generally contraindicated in parkinsonian patients
4. One of the following statements is correct as regards benzodiazepines
- A. Benzodiazepines directly open chloride channels.
 - B. Benzodiazepines show analgesic actions.
 - C. Clinical improvement of anxiety requires 2 to 4 weeks of treatment with benzodiazepines.
 - D. All benzodiazepines have some sedative effects
5. One of the following is a short-acting hypnotic?
- A. Phenobarbital
 - B. Diazepam
 - C. Chlordiazepoxide
 - D. Triazolam
6. One of the following statements as regards phenobarbital is correct:
- A. Phenobarbital shows analgesic properties.
 - B. Diazepam and phenobarbital induce the P450 enzyme system.
 - C. Phenobarbital is useful in the treatment of acute intermittent porphyria.
 - D. Phenobarbital induces respiratory depression, which is enhanced by the consumption of ethanol
7. Peripheral adverse affects of levodopa, including nausea, hypotension, and cardiac arrhythmias, can be diminished by including one of the following drugs in the therapy
- A. Amantadine
 - B. Bromocriptine
 - C. Carbidopa
 - D. Entacapone
8. One of the following antiparkinson drugs may cause peripheral vasospasm:
- A. Amantadine
 - B. Bromocriptine
 - C. Carbidopa
 - D. Entacapone
9. One of the following antihypertensive drugs can precipitate a hypertensive crisis following abrupt cessation of therapy:
- A. Clonidine
 - B. Diltiazem

- C. Enalapril
- D. Losartan

10. The following are short acting β_2 agonists used in the management of asthma **except**:
- A. Albuterol
 - B. Terbutaline
 - C. Salmeterol
 - D. Metaproterenol
11. One of the following treatments is indicated for immediate management of an elderly patient with pulmonary edema:
- A. Spironolactone
 - B. Furosemide
 - C. Acetazolamide
 - D. Chlorthalidone
12. A group of college students is planning a mountain climbing trip to the Andes. One of the following drugs would be appropriate for them to take to prevent mountain sickness:
- A. Propranolol
 - B. Methyldopa
 - C. Acetazolamide
 - D. Verapamil
13. One of the following is used for Long-term preventive treatment of asthma
- A. Zafirlukast orally.
 - B. Cromolyn by inhaler.
 - C. Fluticasone by aerosol.
 - D. Theophylline orally.
14. The following measures may be helpful in status epilepticus **except**:
- A. Intramuscular diazepam
 - B. Rectal paraldehyde
 - C. Intravenous phenytoin
 - D. Intravenous phenobarbitol
15. One of the following drug will have its antihypertensive effects inhibited by imipramine
- A. Diazoxide
 - B. Guanadrel
 - C. Hydralazine
 - D. Prazosin
16. One of the following drugs would be the most effective, for long-term therapy aimed at reducing the incidence or severity of the coronary vasospasm in a patient with variant angina:
- A. Atorvastatin

- B. Diltiazem
 - C. Nitroglycerin
 - D. Propranolol
17. One of the following is the most appropriate drug to rapidly reverse bronchoconstriction:
- A. Inhaled cromolyn.
 - B. Inhaled beclomethasone.
 - C. Inhaled albuterol.
 - D. Intravenous propranolol
18. The following pharmacokinetic properties of ethosuximide are correct **except**:
- A. It has a low total body clearance
 - B. It is highly efficacious in management of absence seizures
 - C. Its clearance is increased by valproic acid
 - D. It causes dose related adverse effects
19. The agent given sublingually in an acute attack of angina pectoris is:
- A. Glyceryl trinitrate
 - B. Amyl nitrite
 - C. Erythritol tetranitrate
 - D. Pentaerythritol tetranitrate
20. A patient consumes an excessive dose of theophylline and develops toxicity in response to the drug. Which of the following is the most likely consequence of this?
- A. Bradycardia
 - B. Drowsiness progressing to sleep and then coma
 - C. Hepatotoxicity
 - D. Seizures

SECTION B: SHORT ANSWER QUESTIONS: TOTAL 40 MARKS

1. Explain three ways that can be used to reverse Parkinsonism symptoms caused by antipsychotic agents: **6 marks**
2. Explain the mechanism of action of heparin in the management of deep-venous thrombosis: **5 marks**
3. Explain the role of diuretics in the management of cardiovascular disorders: **5 marks**
4. State the mechanism of action of any four classes of antidepressants: **4 marks**
5. Giving examples of at least 3 classes of drugs used, Explain the strategy applied in therapeutic management of asthma **6 marks**
6. State two of the most common adverse effects associated with each of these Lipid lowering drugs: **6 marks**
 - A. colessevelam

- B. Niacin
 - C. Ezetimibe
7. Explain the mechanism of action of any four classes of drugs used in the management of heart failure: **8 marks**

PART C: LONG ANSWER:

TOTAL 40 MARKS

1. Classify the anti-arrhythmics giving an example of two drugs in each class: **10 marks**
 - B. Explain the mechanism of action of each of class of drugs named above:
10 marks
2. Relate the pharmacological interventions in a patient with parkinsonism with the goals of intervention: **10 marks**
 - b. Explain the mechanism of action of at least 5 classes of drugs used in parkinsonism to achieve the goals in A above: **10 marks**