



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

REGINA PACIS INSTITUTE OF HEALTH SCIENCES

MAIN EXAMINATION

AUGUST – DECEMBER 2017 TRIMESTER

FACULTY OF SCIENCES

DEPARTMENT OF NURSING

REGULAR PROGRAMME

UNUR 210: CLINICAL PHARMACOLOGY II

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Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions

PART -I: MULTIPLE CHOICE QUESTIONS (MCQs) (20 MARKS)

Answer all the questions in this section. Each question carries 1 mark.

- Q1. The antihypertensive drug which has both arterial and venous dilation effect is:
- a) Nitroprusside
 - b) Verapamil
 - c) Atenolol
 - d) Nifedipine
- Q2. Which of the following statements best describes the mechanism of action of benzodiazepines?
- a) Benzodiazepines activate GABA-B receptor in the spinal cord
 - b) They inhibit GABA – transaminase leading to increased levels of GABA
 - c) They block glutamate in hierarchical neuronal pathways in the brain
 - d) They increase the frequency of Cl⁻ channel opening which are coupled to GABA receptors.
- Q3. A 30 year old male patient suffering from cerebral edema will be best treated with:
- a) Furosemide
 - b) Amiloride

- c) Mannitol
 - d) Enalapril
- Q4. Which of the following antiseizure drugs produces enhancement of GABA-mediated inhibition?
- a) Ethosuximide
 - b) Carbamazepine
 - c) Phenobarbital
 - d) Lamotrigine
- Q5. Which of the following antiseizure drugs acts directly on the GABA receptor-chloride channel complex?
- a) Vigabatrin
 - b) Diazepam
 - c) Gabapentin
 - d) Valproate
- Q6. Identify the drug which is used in the treatment of Parkinsonian disorders?
- a) Phenytoin
 - b) Selegiline
 - c) Haloperidol
 - d) Fluoxetine
- Q7. Which of the following opioid analgesics is a strong mu receptor agonist?
- a) Naloxone
 - b) Morphine
 - c) Pentazocine
 - d) Buprenorphine
- Q8. Analgesic drug which has inhibitory action on norepinephrine and serotonin reuptake in the CNS is?
- a) Tramadol
 - b) Loperamide
 - c) Fluoxetine
 - d) Butorphanol
- Q9. Lithium carbonate is useful in the treatment of:
- a) Petit mal seizures
 - b) Neurosis
 - c) Bipolar disorder
 - d) Trigeminal neuralgia

- Q10. Select the antidepressant drug which is a selective serotonin reuptake inhibitor?
- a) Phenelzine
 - b) Desipramine
 - c) Maprotiline
 - d) Fluoxetine
- Q11. This drug reduces blood pressure by acting on vasomotor centers in the CNS:
- a) Labetalol
 - b) Clonidine
 - c) Enalapril
 - d) Nifedipine
- Q12. Select the glucose lowering agent from the first-generation of sulfonylureas:
- a) Glibenclamide)
 - b) Glipizide
 - c) Glimepiride
 - d) Tolbutamide
- Q13. Which of the following property combinations is peculiar to the majority of NSAIDs?
- a) Antihistaminic, antipyretic, analgesic
 - b) Immunodepressive, anti-inflammatory, analgesic
 - c) Antipyretic, analgesic, anti-inflammatory
 - d) Anti-inflammatory, immunodepressive, antihistaminic
- Q14. The drug acts by competitively blocking the Na⁺/K⁺/2Cl⁻ cotransporter is:
- a) Loop diuretics
 - b) Thiazide diuretics
 - c) Potassium-sparing diuretics
 - d) Carbonic anhydrase inhibitors
- Q15. Aminoglycosides have the following unwanted effects:
- a) Pancytopenia, anaemia
 - b) Hepatotoxicity, neurotoxicity
 - c) Ototoxicity, nephrotoxicity
 - d) Irritation of gastrointestinal mucosa
- Q16. Select the anticancer drug, a pyrimidine antagonist:
- a) Fluorouracil
 - b) Mercaptopurine
 - c) Thioguanine

d) Methotrexate

Q17. Chloramphenicol has the following unwanted side effects:

- a) Nephrotoxicity
- b) Pancytopenia
- c) Hepatotoxicity
- d) Ototoxicity

Q18. Select the drug used for leishmaniasis treatment:

- a) Pyrimethamine
- b) Albendazole
- c) Sodium stibogluconate
- d) Tinidazole

Q19. The antibacterial drug – a fluoroquinolone derivative is:

- a) Chloramphenicol
- b) Nitrofurantoin
- c) Nalidixic acid
- d) Ciprofloxacin

Q20. Dry cough and wheezing are known side effects of which class of diuretics?

- a) Angiotensin converting enzyme inhibitors
- b) Angiotensin II Receptor Blockers
- c) thiazide diuretics and ACEI
- d) Potassium sparing diuretics

PART-II: SHORT ANSWER QUESTIONS (SAQs)

(40 MARKS)

- Q1. Outline six (6) clinical use of Opioid Analgesics **(6 marks)**
- Q2. Describe why Levodopa is given in combination with carbidopa in the management of Parkinson disease **(4marks)**
- Q3. Describe the mechanism of action of Benzodiazepines **(5 marks)**
- Q4. What are the rationales of using manitol and avoiding morphine in head injury **(8 marks)**
- Q5. Describe the mechanism of action and main therapeutic application of the classes of statin and Niacin (Nicotinic acid) **(8 marks)**
- Q6. State 6 common side effects of anticancer drugs **(3 marks)**

Q7. Explain the pharmacological basis for using the following drugs:

- a) Procainamide in arrhythmia **(2 marks)**
- b) Levodopa in Parkinson disease **(2 marks)**
- c) Spironolactone in hypertension **(2 marks)**

PART III: LONG ANSWER QUESTIONS (LAQs) (40 MARKS)

Q1. Type 2 diabetes is one of the major non-communicable diseases with high morbidity and mortality rates.

- a) Classify oral hypoglycemic agents and give two examples from each class **(10 marks)**
- b) Describe the mechanism of action of each class **(10 marks)**

Q2. Write the class, indication and side effects of: Gentamycin, Ciprofloxacin, Metronidazole, atorvastatin and Warfarin **(20 marks)**

END