KENYATTA UNIVERSITY

EXAMINATION FOR THE DEGREE OF BACHELOR OF PHARMACY (LEVEL IV)

PPF 410: CLINICAL PHARMACY I

3RD TRIMESTER 2021/2022 TIME: 3 HOURS

INSTRUCTIONS

- **The paper consists of THREE sections; SECTIONS: A, B and C**
- **Answer each section on separate booklets. Label each booklet CLEARLY**
- **Answer ALL questions**

SECTION A

PPF411: INTRODUCTION TO CLINICAL PHARMACY

1. All the following are categories of medication-related problems (MRPs) **EXCEPT**…
   A. adverse drug reactions
   B. non-compliance
   C. patient beliefs
   D. under dose
   E. untreated indications

2. Pharmaceutical care plan best focuses on…
   A. health outcomes
   B. adverse drug reactions
   C. provision of drugs
   D. drug administration
   E. making a diagnosis

3. A Pharmacist working in an in-patient facility should do the following in most of the times **EXCEPT**...
   A. in-patient pharmaceutical care
   B. drug information to other healthcare workers
   C. promoting diseases prevention
   D. identifying and managing drug therapy
   E. provision of drugs and other medical devices

4. Rationale prescribing involves the following **EXCEPT**...
   A. patient choices
   B. minimize cost
   C. maximize prognosis
   D. minimize adverse events
   E. maximize effectiveness

5. An item that is **NOT** critical to clinical examination is...
   A. building a therapeutic relationship
   B. skills in communication
   C. provision of drugs pharmacologic properties
   D. sharing information
   E. gathering information

6. One of the following interactions is not essential in drug selection when a decision is made to start pharmacotherapy.
   A. Drug-drug
   B. Drug-food
   C. Drug-patient
   D. Drug-age
   E. Drug- disease

7. Indicate TRUE or FALSE in the following statements (4 marks)
   i) Pharmacist's patient assessment mainly focuses on medication history
   ii) Patients' beliefs about the benefits and risks of medicines are rarely explored during pharmaceutical consultation
   iii) The best time for a pharmacist to advise the prescriber is before prescribing.
   iv) EBM (evidence-based medicine) should lead to better patient care.

8. Outline the three drug events that medications-drug problems should address. (3marks)
9. Pharmacists help in particularising medication therapy. In this respect indicate **FOUR** instances a pharmacist advises the clinician on drugs. (4 marks)

10. Explain the following terms as used in clinical pharmacy:
    i) Pharmaco vigilance. (2marks)
    ii) Medicine therapeutic management. 2marks)

11. Outline the **THREE** stages of pharmaceutical care. (3marks)

12. As regards the systemic examination of gastrointestinal system outline the following:
    i) Names of the **FIVE**regions of the abdominal cavity. (5marks)
    ii) The organs in each region. (5marks)

13. JK is a 45-years old businessman admitted in Kiambu L5 hospital two days ago. A level 4 pharmacy student visited him for clinical assessment. He narrated that he was admitted due to persistent cough, fever and weight loss. A day after admission an CXR was done and he started providing sputum for bacteriological investigation. JK had been taking a herbal concoction provided by a herbalist. The patient file confirmed he is on antiretroviral drugs for the last one year.

i. Enumerate the most important thing the student should do before starting to take the history of the patient. (1mark)
ii. Illustrate JK's biodata. (2marks)
iii. Outline the medication history of JK. (3marks)

SECTION B

PPF412: INSTITUTION AND COMMUNITY PHARMACY PRACTICE

1. Describe the minimum infrastructural settings of a professional community pharmacy as per the guidelines of both the Pharmaceutical Society of Kenya (PSK) and the Pharmacy and Poisons Board (PBB) (10marks)

2. Compare and contrast the practice of a pharmacist in community and hospital settings (10 marks)

3. Giving specific examples discuss five laboratory tests that a community pharmacist can perform and describe their clinical significance. (10 marks)

4. Regarding Epidemiology in Pharmacy practice, Discuss:
    i. Factors that influence infection in disease transmission (6marks)
    ii. Possible interventions of a community pharmacist in the disease process. (4marks)

SECTION C

PPF413: INTRODUCTION TO TOXICOLOGY

1. The mechanism of delayed toxicity due to carbon monoxide involves…
   A. direct damage to vascular endothelial cells
   B. formation of methemoglobin
   C. inhibition of cytochrome oxidase
   D. inactivation of polymorphonuclear leucocytes
   E. inhibition of mitochondrial phosphorylation

2. The aflatoxin which is the most potent hepatotoxin and carcinogen is...
   A. Aflatoxin B_1
   B. Aflatoxin B_2
   C. Aflatoxin G_1
   D. Aflatoxin G_2
   E. Aflatoxin M_1

3. Identify the correctly matched antidote with the **MAIN** indication
   A. pralidoxime - carbamate insecticides
   B. glucagon - beta blockers
   C. protamine sulphate - enoxaparin
   D. diazepam - mefloquine
   E. activated charcoal – fentanyl

4. Which one of the following drugs is the antidote for diazepam overdose?
   A. Naloxone
   B. Flumazenil
   C. Acetylcysteine
   D. Atropine
   E. Methionine

5. Which is **NOT CORRECT** about acute carbamate pesticide poisoning?
   A. it carbamylates the active site of acetyl cholinesterase
   B. it causes an acute cholinergic syndrome
   C. it responds to treatment with atropine
   D. both miosis and mydriasis occur
   E. the definitive diagnosis is measurement of plasma cholinesterase

6. An example of type A adverse effect is;
   A. ototoxicity due to aminoglycosides
   B. myocardial infarction from coxibs
   C. hepatotoxicity from paracetamol overdose
   D. aplastic anaemia due to chloramphenicol
   E. primaquine induced hemolytic anaemia

7. Which is a **CORRECT** component of alpha-adrenergic toxidrome?
    A. Hypothermia
    B. Flushing
    C. Hypotension
    D. Tachycardia
    E. Mydriasis

8. Chronic lead poisoning results in;
    A. Peripheral motor neuropathy
    B. Encephalopathy
    C. Disruption of nail matrix
    D. Normochromic, normocytic anaemia
    E. Desquamating rash to the palms

9. Which is of the following is **CORRECT** about drug hypersensitivity?
    A. Acute generalized exanthematous pustulosis (AGEP) is an example of type I hypersensitivity
    B. Serum sickness that occurs with β-lactams is an example of type I Ihypersensitivity
    C. Vasculitis that is due to minocycline is an example of type III hypersensitivity
    D. Heparin induced thrombocytopenia is an example of type IV hypersensitivity
    E. NSAIDs cause exacerbations of asthma through IgE mediated immune response

10. Acute salicylate toxicity presents with the following **EXCEPT…..**
    A. Hyperventilation
    B. Tinnitus
    C. Encephalopathy
    D. Seizures
    E. Low blood pressure

11. Describe the mechanism of toxicity from cyanide poisoning (3 marks)

12. Explain the management of acute kerosene poisoning in a child (5 marks)

13. A three-month infant is brought to hospital with a history of constipation, loss of appetite, weakness, an altered cry, and a loss of head control. The mother has been feeding the child with honey-based formulas in addition to regular breastfeeding. supplementing feeding. Laboratory investigations demonstrated the presence of botulinum toxin in serum and stool. As a result, a diagnosis of infant botulism was made.

i. Describe the mechanism of toxicity of infant botulism. (5 marks)

ii. Outline the hospital management of this infant (3 marks)

14. Mr. Y was found lying unconscious by the roadside and taken to hospital. He had slow and irregular breathing, low blood pressure, vomiting, pale skin and a low body temperature. Preliminary diagnosis was that of acute alcohol intoxication, which was later confirmed from the laboratory to be alcohol adulterated with high amounts of methanol

i. Besides alcohol and methanol intoxication, State four other differential diagnoses for this patient (2 marks)

ii. Describe the management of this patient. (5 marks)

15. A twenty-year-old girl ingested a large amount of dichlorvos in a suicide attempt. The initial presentation was salivation, lacrimation, urination, diarrhoea, gastro intestinal distress and emesis among other symptoms.

i. Outline four laboratory investigations you would require to confirm toxicity due todichlorvos (2 marks)

ii. Describe the management of the patient within the first forty-eight hours (5 marks)