



ZIMBABWE

**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY
DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

MODULE: Pharmaceutical Dispensing

PAPER NO: 448/22/M03

DURATION: 3 Hours

OCTOBER / NOVEMBER 2024 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1. This question paper comprises of six (6) questions.**
- 2. Answer any five (5) questions. Each question carries 20 marks.**
- 3. This question paper comprises of four (4) printed pages.**
- 4. Do not write anything on the question paper.**
- 5. Do not write your name on the answer script.**

This paper consists of 4 printed pages.

QUESTION 1

- a) Name one common side effect that you would advice your customers on when recommending the following:
- i) Ibuprofen for muscular pain (1 mark)
 - ii) Chlorpheniramine for allergies (1 mark)
 - iii) Codeine phosphate as a cough suppressant (1 mark)
- b) With the aid of examples, describe any five (5) drug classes that can be used to manage coughs. (15 marks)
- c) Define the term "Medicine". (2 marks)

QUESTION 2

- a) Discuss how someone would prevent and treat skin infections due to tinea corporis. (8 marks)
- b) List any four (4) causes of skin itchiness (pruritis). (4 marks)
- c) Give three (3) examples of medicines that can be used to manage eczema. (3 marks)
- d) Explain the causes and effects of sunburns and recommend effective preventive measures. (5 marks)

QUESTION 3

- a) Identify and list the common hurdles or obstacles for these patient populations with respect to medication compliance and discuss ways to overcome these barriers.
- i) Geriatric barriers (old people)
 - ii) Pediatric barriers (children) (10 marks)
- b) i) Name any kinds of prophylaxis that you would recommend to someone who is travelling to areas that are prone to malaria. (2 marks)
- ii) List the different ways in which HIV can be transmitted. (3 marks)
- iii) Name any methods which can be used to prevent HIV. (3 marks)
- iv) Discuss how circumcision prevents AIDs. (2 marks)

QUESTION 4

a) According to the Medicines and Allied substances Control Act [Chapter 15:03]; what are the core functions of the Medicines Control Authority of Zimbabwe (MCAZ). (5 marks)

b) According to the Dangerous Drugs Act [Chapter 15:02].

- i) List any six (6) Part IV drugs. (3 marks)
- ii) State requirements for prescription writing for Part IV drugs. (4 marks)
- iii) Define a dangerous drugs register. (1 mark)
- iv) Show if the following statements is / are true or false:

		True	False
1.	A matron at a hospital with no pharmacist can supply or acquire Part IV preparations		
2.	Midwives when fully trained can only possess a tincture of opium and any preparation containing pethidine		
3.	If treatment is required for a continuous period of 4 months / more permission should be sought from the secretary of health		
4.	the dispensers should supply a narcotic / Part IV to an addict		

(4 marks)

c) According to the Medicines and Allied substances Control Act [Chapter 15:03].

- i) What is clinical trial. (1 mark)
- ii) Define the term "Advertisement". (1 mark)
- iii) Define the term "Prescriptions". (1 mark)

QUESTION 5

- a) Give three (3) drug classes that can be used to treat pain. (3 marks)
- b) What do you understand by the terms generic name and brand name. (4 marks)
- c) Name five (5) routes of drug administration and give examples of dosage forms for each route. (10 marks)
- d) What are the risks of using OTC medicines without going to see a prescriber first? (3 marks)

QUESTION 6

- a) List four (4) types of premises that are licensed by the Medicines Control Authority of Zimbabwe according to the Medicines and Allied substances Control Act [Chapter 15:03]. (4 marks)
- b) According to the Medicines and Allied Substances Control Act [Chapter 15:03] and the Medicines and Allied Substances Control (General) Regulations 1991 (SI 150 of 1991) which persons are allowed to prescribe medicines in the 9th schedule? (Prescription Preparation, PP). (3 marks)
- c) Recording of prescriptions.
 - i) What is the period of validity of a prescription when it has not been dispensed since the date of issue by a prescriber. (1 mark)
 - ii) What information should be kept when a prescription is dispensed. (5 marks)
 - iii) Within what period should a record of supply on the basis of a prescription and for how long should records be kept. (2 marks)
- d) What are the differences in supply of medicines in the 9th schedule (Prescription Preparations / PP) and Tenth Schedule (PP10). (5 marks)

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DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

IN

**DISPENSARY ASSISTANT,
PUBLIC HEALTH,
NURSING ASSISTANT,
VETERINARY TECHNOLOGY**

**MODULE: Communication And
Computer Applications**

**PAPER NO: 448/22/M02
448/23/M02**

DURATION: 3 hours

OCTOBER/NOVEMBER 2024 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1. Answer any five (5) questions.**
- 2. Do not write anything on the question paper.**
- 3. Do not write your name on the answer booklet .**

This paper consists of 4 printed pages.

QUESTION 1

- a) Explain how the factors given below affect the choice of a channel.
- i) Speed (2marks)
 - ii) Confidentiality (2marks)
 - iii) Distance (2marks)
- b) Describe the following natures of communication.
- i) Interpersonal communication (2marks)
 - ii) Intrapersonal communication (2marks)
 - iii) Intergroup communication (2marks)
 - iv) Mass communication (2marks)
- c) Give any six (6) channels of communication. (6 marks)

QUESTION 2

- a) Write any five (5) advantages and five (5) disadvantages of verbal communication. (10marks)
- b) Explain any 5C's of communication (10marks)

QUESTION 3

- a) Explain how the following factors influence face to face communication:
- i) body language (3marks)
 - ii) eye contact (3marks)
 - iii) tone (3marks)
- b) State any five (5) aids to effective communication. (5marks)
- c) Give any three (3) scenarios where written communication is preferred over face to face communication (6marks)

QUESTION 4

- a) List any five (5) information that should appear on a stock card a pharmacy. (5 marks)
- b) Disease surveillance is defined as the ongoing systematic collection, analysis and interpretation of data about the occurrence and spread of disease in a population in relation to this definition, state any five (5) sources of disease surveillance data. (5marks)
- c) Define the following terms in relation to the communication process.
- i) Encoding. (2marks)
 - ii) Decoding (2marks)
 - iii) Channel (2marks)
 - iv) Noise (2marks)
 - v) Feedback (2marks)

QUESTION 5

- a) Explain each of the following
- i) Text data input device. (3marks)
 - ii) Audio data input device. (3marks)
 - iii) Pictorial data input device. (3marks)
 - iv) Networking device. (3marks)
- b) Give the appropriate MS- office application for the following.
- i) Spreadsheet software. (1mark)
 - ii) Word processing. (1mark)
 - iii) Communication software. (1mark)
 - iv) Presentation software. (1mark)
 - v) Database software. (1mark)

QUESTION 6

- a) Outline the importance of good communication within organisations. (10marks)
- b) Give any five (5) forms of verbal communication. (5marks)
- c) State any five (5) forms of written communication. (5marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

MODULE: Pharmaceutical Compounding PAPER NO: 448/22/M05

DURATION: 3 Hours

MAY/JUNE 2024 EXAMINATION

REQUIREMENTS

1. Master formula sheet.
2. Calculator.

INSTRUCTIONS TO CANDIDATE

1. Answer any five (5) questions.
2. Do not write anything on the question paper.
3. Do not write your name on the answer booklet

This paper consists of 4 printed pages.

PAPER NO: 448/22/M05 – PHARMACEUTICAL COMPOUNDING

QUESTION 1

a) Re- express the following expansions.

i) 0,035g / 100mls in units of mg/L (2 marks)

ii) 2.5 ppm in units of mcg/ml (3 marks)

b) Calculate the amount of each ingredient required for 1.5 litres of the formula below. Show the calculating factor.

INGREDIENT	MASTER FORMULA
Sodium chloride	20mg
Dextrose citrate	10g
Potassium citrate	2% w/v
Sodium bicarbonate	7.5 ml
Starch	0.02% w/v
Water to	50 mls

(10 marks)

c) You have been asked to dispense 250mls of solution which contains 0.05g/5ml of drug. How many milligrams of the drug is needed to meet the needs prescription. (5 marks)

QUESTION 2

a) List three types of balances used for weighing pharmaceutical ingredients. (3 marks)

b) State and explain the use of any five (5) equipment used for compounding. (10 marks)

c) Explain any four (4) advantages and three (3) disadvantages of pulverisation as a compounding techniques. (7 marks)

QUESTION 3

Below is a typical formulation for cosmeceutical. Study it and answer questions that follow:

INGRIEDIENT	USE OF INGRIEDIENT	% INPUT
Stearic acid	?	5
Water	Vehicle	0.5
Cetyl alcohol	?	2
Glycerine	?	3
Poly propylene glycol	?	2
Glycerol mass stratege	?	2
Carbool	?	0.07
Triethanolamine	?	0.6
Yellow number 5	?	0.0034
Petroleum jelly	?	2
Liquid paraffin	?	1
Fragrance	?	0.05
Lanolin	?	0.5
Hydrocorticone	?	0.5
Castor oil	?	2
Vitamin E	?	0.5

- List the functions of each excipient above. (15 marks)
- For what reasons is the preservation of this formulation compromised. (3 marks)
- Suggest a suitable packaging for this formulation. (2 marks)

QUESTION 4

- List five (5) of pharmaceutical products where a mixing process is involved during the production of these products. (5 marks)
- Explain how the following compounding techniques work:
 - Comminution (2 marks)
 - Trituration (2 marks)
 - Blending (2 marks)
- Give three (3) reasons or purposes of compounding.

QUESTION 5

- a) List any ten (10) information that must appear on the label of a dispensed medicine. (10 marks)
- b) Describe the errors in measurement that occur during compounding. (10 marks)

QUESTION 6

- a) How many millilitres of a 0.4% stock solution are required to make 2 litres of a 0.06% solution. (4 marks)
- b) If 500mls of a 15% solution of methyl salicylate in alcohol is diluted to 1500mls, what is the strength v/v. (4 marks)
- c) How much 10% w/w ammonia solution can be made from 1800g of 28% w/w strong ammonia solution. (4 marks)
- d) Complete the following table:

Warning	Example of Pharmaceutical formulation	
For recta use only	1..... 2.....	(2 marks)
Not to be taken	1..... 2.....	(2 marks)
For external use only	1..... 2.....	(2 marks)
Warm to body temperature before administration	1..... 2.....	(2 marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

MODULE: Stock Management

PAPER NO: 448/23/M04

DURATION: 3 Hours

OCTOBER/NOVEMBER 2024 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

1. Answer any five questions.
2. Do not write anything on the question paper.
3. Do not write your name on the answer booklet.

This paper consists of 4 printed pages.

QUESTION 1

- (a) Describe the following pricing strategies:-
- (i) Price skimming (3 marks)
 - (ii) Penetration pricing (3 marks)
 - (iii) Psychological pricing (3 marks)
- (b) List the four stages of product life cycle. (4 marks)
- (c) Explain how the government of Zimbabwe can regulate prices in the country. (5 marks)

QUESTION 2

- (a) State the six rights of logistics. (6 marks)
- (b) Outline the key features of the Zimbabwe Assisted Pull System. (14 marks)

QUESTION 3

- (a) State the purposes of conducting physical stock counts. (3 marks)
- (b) Describe the structure of a good warehouse. (10 marks)
- (c) List any seven information that must appear on a stock card. (7 marks)

QUESTION 4

- (a) Draw a clearly labelled diagram of the Logistics cycle. (10 marks)
- (b) Describe the disposal of obsolete, expired and damaged (2 marks)
- (c) Explain the four main steps involved in pharmaceutical procurement. (8 marks)

QUESTION 5

- (a) Define essential Medicine Concept. (3 marks)
- (b) Give any five benefits of the essential Medicines Concepts. (5 marks)
- (c) Outline the selection of medicines for inclusion in the essential medicines list. (8 marks)
- (d) Write the corresponding meaning of the SABC classification of medicines stating where each class is found. (4 marks)

QUESTION 6

- (a) State any five examples of irrational use of medicines. (5 marks)
- (b) Outline any five causes of irrational use of medicines. (10 marks)
- (c) Give any five consequences of irrational sue of medicines. (5 marks)

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IN

DISPENSARY ASSISTANT

MODULE: Pharmaceutical Compounding

PAPER NO: 448 /22/M05

DURATION: 3 Hours

OCTOBER/NOVEMBER 2024 EXAMINATION

REQUIREMENTS

1. Master formula sheet.
2. Calculator.

INSTRUCTIONS TO CANDIDATE

1. Answer any five questions.
2. Do not write anything on the question paper.
3. Do not write your name n the answer booklet.

This paper consists of 4 printed pages.

QUESTION 1

- (a) You receive a prescription requesting you to prepare 150mls of Sodium Chloride compound mouthwash BP. The British Pharmacopoeia has the following master formula:

Ingredient	Master formula
Sodium Bicarbonate BP	10g
NaCl BP	15g
Peppermint BP	25mls
DS Chloroform BP	500mls
Portable water	To 1000mls

On a master formula sheet, show the calculating factor and indicate all quantities requires to fill the prescription. (8 marks)

- (b) Draw a well detailed pharmaceutical label on the same master formula sheet given the following information:-

Batch number :	02365pN
Manufacturing date :	03/04/19
Expiry date:	06/04/26

(5 marks)

- (c) Sodium Chloride Compound Mouthwash BP is to be stored on an airtight, plain white glass jar with a child resistant cap. The shelf life is one year before reconstitution and should always be in a cool dry place. Fit this information on the master formula sheet given. (4 marks)
- (d) Describe the procedure you would follow to prepare the prescription. (3 marks)

QUESTION 2

- (a) Define the following terms:-

- (i) trituration (2 marks)
- (ii) levigation (2 marks)
- (iii) moulding (2 marks)

- (b) Explain the functions of the following excipients in pharmaceutical formulations:

- (i) lubricants (2 marks)
- (ii) diluents (2 marks)
- (iii) buffers (2 marks)
- (iv) preservatives (2 marks)

(c) Differentiate between the following:

- (i) Solutions and suspensions (2 marks)
- (ii) Suppositories and pessaries (2 marks)
- (iii) Creams and lotions (2 marks)

QUESTION 3

(a) You dispense 50mls of 1.5% w/v ibuprofen suspension with the following:-

SIG: 2 tsp qid

How many milligrams of Ibuprofen are in each dose. (5 marks)

(b) A prescription is written for 300mg dose of an oral solution. The pharmacy stocks a 250mg/5ml stock bottle. How much of the stock solution should be taken per dose. (5 marks)

(c) How many millilitres of 1:500w/v solution is needed to make 3 litres of a 1:2000 w/v solution (5 marks)

(d) If 200mls of an 8% w/v potassium chloride solution is diluted to 1500mls, what is the new percentage strength of the diluted solution. (5 marks)

QUESTION 4

Describe in detail the following errors in measurement

- (a) Gross errors (5 marks)
- (b) Systematic errors (10 marks)
- (c) Random errors (5 marks)

QUESTION 5

(a) List any five purposes of packaging. (5 marks)

(b) State any three properties of the following packaging materials:-

- (i) Glass (3 marks)
- (ii) Plastics (3 marks)
- (iii) Metal (3 marks)

(c) Define the following, giving appropriate examples:-

(i) Unit dose packaging (3 marks)

(iii) Multi dose packaging (3 marks)

QUESTION 6

(a) With the aid of clear diagrams, differentiate between accuracy and precision. (8 marks)

(b) State any two quality control tests that can be considered for the following dosage forms:

(i) Ointments (2 marks)

(ii) Capsules (2 marks)

(iii) Parenteral preparations (2 marks)

(iv) Solutions (2 marks)

(c) Describe the FIFO and FEFO principles of stock management. (4 marks)

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NATIONAL CERTIFICATE

IN

PUBLIC HEALTH, DISPENSARY ASSISTANT, VETERINARY ASSISTANT

**MODULE: Health Communication and
Computer Applications**

PAPER NO: 448/25/M01

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

1. Answer all questions in Section A.
2. Question 6 is compulsory. Answer any other two (2) questions in Section B.

This paper consists of 4 printed pages.

PAPER NO: 448/25/M01 - HEALTH COMMUNICATION AND C
APPLICATIONS

QUESTION 1

- a) Define the following terms:
 - i) Communication
 - ii) Encoder
 - iii) Channel
 - iv) Decoder
 - v) Feedback
- b) Using a simple health service example, outline the communication process.
- c) State and explain four factors to consider when choosing a communication channel in a health setting.

QUESTION 2

- a) Identify and explain two (2) barriers to effective communication in healthcare under each class:
 - i) Encoding barrier
 - ii) Decoding barrier
 - iii) Responding barrier
 - iv) Transmission barrier
- b) State any four (4) aids to effective communication.

SECTION B

Answer any three (3) questions

Question 6 is compulsory

QUESTION 3

A patient in an outpatient department seems anxious and says “I don't understand what you want me to do.”

- a) Describe four (4) benefits of effective face- to face communication in healthcare. (8 marks)
- b) Explain how the health worker should use the following to improve understanding:
 - i) Tone (4 marks)
 - ii) Choice of wording (4 marks)
 - iii) Eye contact and attentiveness (4 marks)

QUESTION 4

A health worker must explain a follow up appointment plan to:

- An elderly patient with hearing difficulty, and
 - A young adult with low literacy
- a) State three (3) patient factors that influence communication and explain how each affects understanding. (6 marks)
 - b) For each patient above, explain three (3) adaptations the health worker should make. (12 marks)
 - c) State one ethical reason why adopting communication is important in healthcare. (2 marks)

PAPER NO: 448/25/M01 – HEALTH COMMUNICATION AND COMPUTER APPLICATIONS

QUESTION 5

- a) Define visual communication and state two (2) reasons it is important in healthcare. (6 marks)
- b) Give four (4) examples of visual communication tools used in health services and explain the purpose each. (8 marks)
- c) A clinic wants to reduce missed appointments. Propose a simple visual communication strategy that could be displayed to patients and explain how it would work. (6 marks)

QUESTION 6

- a) Explain the following terms
 - i) Input device (2 marks)
 - ii) Software (2 mark)
 - iii) Word processing application (2 marks)
 - iv) Database query (2 mark)
 - v) Networking device (2 marks)
- b) Identify two (2) security threats and two (2) data protection measures appropriate for a health workforce computer. (4 marks)
- c) Identify and explain any three (3) principles for designing good PowerPoint presentations. (6 marks)

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IN

DISPENSARY ASSISTANT

MODULE: Pharmaceutical Dispensing

PAPER NO: 448/23/M03

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

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INSTRUCTIONS TO CANDIDATES

1. This question paper comprises of two sections:
SECTION A and SECTION B.
2. **SECTION A** is compulsory: All the marks add up to 40.
3. **SECTION B:** Choose any three (3) questions out of four (4).
4. Each question carries twenty (20) marks.

This paper consists of 3 printed pages.

SECTION A

Answer all questions from this section.

QUESTION 1

- a) Outline any five (5) sources of drugs. (5 marks)
- b) Define the following terms:
- | | |
|-----------------------|-----------|
| i) Pharmacology | (3 marks) |
| ii) Medicine | (2 marks) |
| iii) Contraindication | (2 marks) |
| iv) Analgesic drug | (2 marks) |
| v) Antibiotic | (2 marks) |
| vi) Antipyretic drug | (2 marks) |
| vii) Antiseptic | (2 marks) |
- c) Briefly explain any five (5) medical uses of drugs. (5 marks)

QUESTION 2

- a) Illustrate by drawing an actual label, the information that should appear on the label for medicine that is dispensed for the following patient:
- A 26 year old female, Yeukai M is to be injected Dexamethasone injection (4MG/ML;2ML) once a day for the next two days. Yeukai stays in Protea, Chadcombe. (10 marks)
- b) Highlight five (5) examples of personnel who are authorised to prescribe medications in Zimbabwe. (5 marks)

SECTION B

Choose any three (3) questions.

QUESTION 3

A 75-year-old patient who is generally healthy and whose only regular prescribed medication is for mild osteoarthritis, asks you for something for constipation. She says that she has never really had trouble before and worries if it is just a consequence of getting old. On questioning she appears to be active, to eat a healthy diet including plenty of fresh fruits and vegetables and to have an adequate intake of fluid. You check her patient medical record and discover that she complained to her general practitioner about having indigestion, she has recently been switched from diclofenac to co-dydramol for her arthritis.

- a) Define the term constipation (3 marks)
- b) Outline five (5) causes of constipation (5 marks)
- c) State and explain any five (5) non-pharmacological interventions that she can employ to manage her constipation. (10 marks)
- d) For the following medications; (Co-danthramer, liquid paraffin, Movicol, Picolax and Senokot) which medication cannot be bought without a prescription and explain why. (2 marks)

QUESTION 4

A customer asks you for advice about her 11-year-old son who has diarrhoea. In response to your question, she tells you that the diarrhoea started after the boy returned from school, since then he has been to the toilet about six (6) times. He has gripping pains in his stomach but otherwise seems well. She says that he bought himself a takeaway kebab at lunchtime yesterday. No one else in this family had diarrhoea.

- a) What is your assessment to this situation. (5 marks)
- b) Explain the non-pharmacological interventions you would advice the patient. (6 marks)
- c) List five (5) OTC medications that are available for treating diarrhoea. (5 marks)

d) Define the following terms:

- | | | |
|-----|-----------|-----------|
| i) | Diarrhoea | (2 marks) |
| ii) | Ingestion | (2 marks) |

QUESTION 5

A woman asks for your advice about scabies. She says that she has just discovered that her niece has it and has been receiving treatment, but her children were with the affected girls last weekend and one even slept in her bed. She wants to know how likely it is that her children will catch it and is she should take them to the general practitioner for treatment as a preventive measure.

- | | | |
|----|---|------------|
| a) | Comment on the above situation. | (10 marks) |
| b) | Define the term scabies. | (3 marks) |
| c) | Give a brief explanation for the term “cough” and give at least three (3) types of cough. | (6 marks) |
| d) | Highlight two OTC medications used to treat cough. | (1 mark) |

QUESTION 6

- | | | |
|-----|---|-----------|
| a) | Identify and list the most common hurdles or obstacles for the patient population with respect to medication compliance and discuss ways to overcome these barriers: | |
| i) | Geriatrics | (5 marks) |
| ii) | Paediatrics | (5 marks) |
| b) | What pharmacological recommendations would you give to a pregnant women who is in her first trimester and is experiencing an episodic tension headache and explain why. | (5 marks) |
| c) | Elaborate on the non-pharmacological interventions that you would advice to a patient experiencing episode tension headache. | (5 marks) |

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DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

IN

PUBLIC HEALTH, DISPENSARY ASSISTANT

**MODULE: Safety, Health, Environment
and Quality Management**

PAPER NO: 395/25/M02

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1. Section A: Answer all questions.**
- 2. Section B: Answer any three (3) questions.**

This paper consists of 3 printed pages.

SECTION A

Answer all questions.

QUESTION 1

- a) Define the following terms with reference to occupational Safety, Health, Environmental and Quality Management (SHEQ)?
- | | |
|------------------------------------|-----------|
| i) Health | (3 marks) |
| ii) Occupational Health | (3 marks) |
| iii) Safety culture | (3 marks) |
| iv) Occupational Safety and Health | (3 marks) |
| v) Safety Management System | (3 marks) |
- b) Identity five (5) examples of Occupational Safety and Health legal instruments that are used in Zimbabwe to protect worker at the workplace? (5 marks)

QUESTION 2

Explain five (5) responsibilities of employers and the employees regarding PPE? (20 marks)

SECTION B

Answer any three (3).

QUESTION 3

- a) Explore the impact of poor waste management under the following:
- | | |
|---------------------------|-----------|
| i) Economic impact | (4 marks) |
| ii) Health impact | (4 marks) |
| iii) Environmental impact | (4 marks) |
- b) Proffer any four (4) solutions with reference to the above problems? (8 marks)

QUESTION 4

- a) Analyse the following toxicological factors regarding the action of poisons on human body:
- | | | |
|------|-----------------------------------|-----------|
| i) | dose | (3 marks) |
| ii) | condition of body / health status | (3 marks) |
| iii) | form of poison | (3 marks) |
| iv) | method of administration | (3 marks) |
| v) | toxicokinetics | (3 marks) |
- b) Illustrate the fire tetrahedron with the aid of a clearly labelled diagram?
(5 marks)

QUESTION 5

- a) Describe in detail the four (4) major components of the safety management system. (16 marks)
- b) Identify four (4) common workplace hazardous target areas at a workplace? (4 marks)

QUESTION 6

- a) Outline ten (10) ideal properties of a good disinfectant? (10 marks)
- b) Highlight any five (5) methods for hazard identification? (10 marks)

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**MINISTRY OF HIGHER AND TERTIARY EDUCATION,
INNOVATION, SCIENCE AND TECHNOLOGY DEVELOPMENT**

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

NATIONAL CERTIFICATE

**IN
DISPENSARY ASSISTANT**

MODULE: Pharmaceutical Compounding PAPER NO: 448/22/M05

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

1. Calculator.
2. Master formula sheet.

INSTRUCTIONS TO CANDIDATE

1. Answer all questions in Section A.
2. Answer any three (3) question in Section B.
3. Do not write your name on the answer booklet.
4. Do not write anything on this question paper.

This paper consists of 6 printed pages.

SECTION A-Answer all questions.

QUESTION 1

- a) Define the following:
- i) Solution (2 marks)
 - ii) Suspension (2 marks)
 - iii) Dilution (2 marks)
 - iv) Mixing (2 marks)
 - v) Pulverisation (2 marks)
- b) State the appropriate equipment to use to carry out the following tasks, A mark for each equipment.
- i) Measuring (4 marks)
 - ii) Moulding (3 marks)
 - iii) Mixing (3 marks)

QUESTION 2

- a) State any two (2) examples of formulations that may have the following auxilliary labels:
- i) For external use only (2 marks)
 - ii) Not to be taken (2 marks)
 - iii) For rectal use only (2 marks)
 - iv) Shake the bottle well (2 marks)
 - v) Do not swallow in large amounts. (2 marks)
- b) State any ten (10) information that must be included on the label of compounded medicine. (10 marks)

SECTION B- Answer any three questions.

QUESTION 3

- a) Explain the use of any five (5) equipment used in pharmacy. (10 marks)
- b) Describe what precision and accuracy is with the aid of clearly labelled diagrams. (10 marks)

QUESTION 4

- a) Identify and state any six (6) reasons for packaging. (6 marks)
- b) State any five (5) factors that affect influence the selection of a suitable packaging material. (5 marks)
- c) Highlight any three (3) key characteristics of the following packaging materials.
- i) Glass (3 marks)
 - ii) Plastics (3 marks)
 - iii) Metals (3 marks)

QUESTION 5

- a) A patient receives 500mg of oestradiol benzoate by injection every day for 21 days. How many grams of oestradiol benzoate does the patient receive altogether. (5 marks)
- b) In 25.0ml of a solution for injection there are 4mg of drug. If the dose to be given to the patient is 200mcg. What quantity of this solution should be used. (4 marks)
- c) Iodine tincture is a 2%w/v solution of iodine. How many grams (g) iodine will 75ml of the tincture contain. (3 marks)
- d) Re- express adrenaline (5mg/l) as a ratio. (3 marks)
- e) If we are starting with 50ml of a solution contaminated with 12ppm of aluminium, to what volume we need to dilute it, to reduce the aluminium concentration to 0,1 ppm. (5 marks)

QUESTION 6

On the answer formula sheet provided, attempt the question below:

You are requested to make 30ml Calamine Lotion from the master formula provided

Ingredient	Official Formula
Calamine	150g
Zinc oxide	50g
Bentonite	15g
Glycerine	5ml
Sodium citrate	5ml
Liquified phenol	50ml
Rose water to	1000ml

Fill out the master formular sheet and show all the calculations you would use to obtain the amounts of each ingredient in the formulation. (20 marks)



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NATIONAL CERTIFICATE

IN

**DISPENSARY ASSISTANT, NURSING ASSISTANT, VETERINARY
TECHNOLOGY, PUBLIC HEALTH**

**MODULE: Communications and Computer
Applications**

**PAPER NO: 448/22/M02
448/23/M02**

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

1. Answer FIVE (5) questions.
2. Do not write anything on the question paper.
3. Do not write your name on the Answer Booklet.

This paper consists of 3 printed pages.

PAPER NO: 448/22/M02 & 448/23/M02 - COMMUNICATIONS AND COMPUTER APPLICATIONS

QUESTION 1

Using relevant examples from your field of study, outline the communication cycle.
(20 marks)

QUESTION 2

- a) Describe the 7Cs of communication, giving relevant examples from your field of study. (14 marks)
- b) Explain the following aids to effective communication.
- i) Speed (2 marks)
 - ii) Familiarity (2 marks)
 - iii) Punctuation (2 marks)

QUESTION 3

- a) Explain how you perform each of the following:
- i) Copy a file from one folder to another (2 marks)
 - ii) Save an existing file in MS Word (2 marks)
 - iii) Insert a footer in a MS Word document (2 marks)
 - iv) Change line spacing in word (2 marks)
 - v) Insert page number in MS Word (2 marks)
- b) Give the purpose of each of the following:
- i) Spreadsheet software (3 marks)
 - ii) Word processing software (3 marks)
 - iii) Communication software (4 marks)

QUESTION 4

- a) Outline any five (5) benefits of face-to-face communication. (10 marks)
- b) State any five (5) factors to consider when choosing a channel of communication. (5 marks)
- c) Differentiate interpersonal communication and intrapersonal communication. (5 marks)

QUESTION 5

- a) Explain what is meant by visual communication and give any three (3) elements of visual communication. (5 marks)
- b) Give any five (5) advantages of using visual communication over other communication types. (5 marks)
- c) List any five (5) types of forms of visual communication. (5 marks)
- d) State the advantages and disadvantages of written communication. (5 marks)

QUESTION 6

- a) Outline any five (5) benefits of selecting a correct channel of communication. (5 marks)
- b) Communication plays a crucial role in all aspects of our life. Give any five (5) reasons why people communicate. (5 marks)
- c) State examples of barriers that fall under the broad classification given below:
 - i) Encoding barriers (3 marks)
 - ii) Decoding barriers (3 marks)
 - iii) Responding barriers (2 marks)
 - iv) Transmission (2 marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

**MODULE: Safety, Health, Environment and PAPER NO: 448/23/M01
Quality Maintenance**

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1. Answer all questions in Section A.**
- 2. Answer any three (3) from Section B.**
- 3. Do not write anything on the question paper.**
- 4. Do not write your name on any part of the booklet.**

This paper consists of 3 printed pages.

PAPER NO: 448/23/M01 – SAFETY, HEALTH, ENVIRONMENT AND QUALITY
MAINTENANCE

SECTION A

Answer all questions.

QUESTION 1

- a) Outline five (5) priorities of a good first aider? (10 marks)
- b) Describe the following waste management processes.
- i) Landfilling (2 marks)
 - ii) Incineration (2 marks)
 - iii) Recycle (2 marks)
 - iv) Biological reprocessing (2 marks)
 - v) Re-use (2 marks)

QUESTION 2

- a) Define the terms?
- i) Safety culture (2 marks)
 - ii) Toxicology (2 marks)
 - iii) Dose (2 marks)
 - iv) Sterilization (2 marks)
 - v) Cleaning (2 marks)
- b) Give one (1) major OSH international law and state its provisions? (5 marks)
- c) List five (5) example of PPE used in the pharmaceutical industry? (5 marks)

SECTION B

Attempt any three (3) questions.

QUESTION 3

Fire classification, complete the table?

CLASS	TYPE OF FIRE	TYPE OF EXTINGUISH(S)
A	?	?
B	?	?
C	?	?
D	?	?
F/K	?	?

2 marks each

(20 marks)

QUESTION 4

Explain in detail the four (4) factors that contribute to the action of poisons in human body?

(20 marks)

QUESTION 5

As SHEQ Officer what are the five (5) major factors will you put into consideration when selecting appropriate disinfectants for your organization?

(20 marks)

QUESTION 6

Elaborate in detail the standard operating procedure (SOP) for cleaning?

- a) Pharmacy floors (5 marks)
- b) Pharmacy shelves (5 marks)
- c) Chemical spill (5 marks)
- d) Pharmacy refrigerator (5 marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

**MODULE: Pharmaceutical Stock Management PAPER NO: 448/22/M04
448/25/M03**

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

- 1. Answer all questions from Section A. 40 marks**
- 2. Answer any three (3) questions from Section B. 20 marks each.**

This paper consists of 3 printed pages.

PAPER NO: 448/22/M04 & 448/23/M03 – PHARMACEUTICAL STOCK
MANAGEMENT

SECTION A

40 MARKS

Answer all questions.

QUESTION 1

Define and give a brief description of the following terms: -

- | | |
|-----------|-----------|
| (a) FEFO | (4 marks) |
| (b) FIFO | (4 marks) |
| (c) Price | (4 marks) |
| (d) AMC | (4 marks) |
| (e) ZAPS | (4 marks) |

QUESTION 2

With the aid of a diagram outline the medicine management cycle.
(20 marks)

SECTION B

60 MARKS

Answer any three (3) questions.

QUESTION 3

Write short notes on the following terms: -

- | | |
|----------|-----------|
| (a) RFQ | (4 marks) |
| (b) VEN | (4 marks) |
| (c) SABC | (4 marks) |
| (d) SOP | (4 marks) |
| (e) RFI | (4 marks) |

QUESTION 4

- | | |
|---|------------|
| (a) Define the term "Essential Medicine Concept" | (5 marks) |
| (b) Discuss any five (5) factors to consider when selecting medicines into the Essential Medicine List. | (15 marks) |

QUESTION 5

Outline any five (5) pricing strategies in the healthcare industry.
(20 marks)

QUESTION 6

Citing Zimbabwe as an example, discuss the essential medicine concept EMC.
(20 marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

**MODULE: Safety, Health, Environment and PAPER NO: 448/23/M01
Quality Maintenance**

DURATION: 3 Hours

JUNE 2026 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

1. Answer all questions in Section A.
2. Answer any three (3) from Section B.
3. Do not write anything on the question paper.
4. Do not write your name on any part of the booklet.

This paper consists of 3 printed pages.

SECTION A

Answer all questions.

QUESTION 1

- a) Outline five (5) priorities of a good first aider? (10 marks)
- b) Describe the following waste management processes.
- i) Landfilling (2 marks)
 - ii) Incineration (2 marks)
 - iii) Recycle (2 marks)
 - iv) Biological reprocessing (2 marks)
 - v) Re-use (2 marks)

QUESTION 2

- a) Define the terms?
- i) Safety culture (2 marks)
 - ii) Toxicology (2 marks)
 - iii) Dose (2 marks)
 - iv) Sterilization (2 marks)
 - v) Cleaning (2 marks)
- b) Give one (1) major OSH international law and state its provisions? (5 marks)
- c) List five (5) example of PPE used in the pharmaceutical industry? (5 marks)

SECTION B

Attempt any three (3) questions.

QUESTION 3

Fire classification, complete the table?

CLASS	TYPE OF FIRE	TYPE OF EXTINGUISHER(S)
A	?	?
B	?	?
C	?	?
D	?	?
F/K	?	?

2 marks each

(20 marks)

QUESTION 4

Explain in detail the four (4) factors that contribute to the action of poisons in human body?
(20 marks)

QUESTION 5

As SHEQ Officer what are the five (5) major factors will you put into consideration when selecting appropriate disinfectants for your organization?
(20 marks)

QUESTION 6

Elaborate in detail the standard operating procedure (SOP) for cleaning?

- a) Pharmacy floors (5 marks)
- b) Pharmacy shelves (5 marks)
- c) Chemical spill (5 marks)
- d) Pharmacy refrigerator (5 marks)

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NATIONAL CERTIFICATE

IN

DISPENSARY ASSISTANT

SUBJECT: Pharmaceutical Stock Management PAPER NO: 448/23/M04

DURATION: 3 Hours

NOVEMBER/ DECEMBER 2025 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

Question one (1) is compulsory. Answer any other three (3) questions.

This paper consists of 3 printed pages.

QUESTION 1

- a) Briefly outline the procurement steps, giving an explanation on each step. (15 marks)
- b) State and explain atleast five (5) Cs of Carter's principle used in supplier evaluation. (10 marks)
- c) Giving a detailed explanation, define the following term:
 - i) Essential medicine concept. (5 marks)
 - ii) Essential medicine. (2 marks)
 - iii) Health. (3 marks)
 - iv) Essential medicine list. (5 marks)

QUESTION 2

- a) State six (6) factors affecting price. (6 marks)
- b) Outline the pricing strategy(ies) that is/are applicable in health care. (State a maximum of seven strategies). (14 marks)

QUESTION 3

- a) Give a detailed explanation of VEN System. (10 marks)
- b) State five things to consider when receiving a product. (5 marks)
- c) State five (5) benefits of the Essential Medicines Concepts. (5 marks)

QUESTION 4

The warehouse is divided into several sections /areas. State and give a detailed explanation for each of the major sections/ area. (20 marks)

QUESTION 5

- a) Discuss the strategies that can be used to reduce the irrational use medicines. Give a detailed explanation for each strategy. In your discussion, define the term "irrational use of medicines" (15 marks)

- b) You have just received Rocephin 1g CV B100×10 from Natpharm today. In your pharmacy, the Rocephin stock had reduced the Emergency Order Point of 1 x B1000.

List the expected names of columns on the stockcard. (5 marks)

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