



**South African  
Pharmacy Council**

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**SAMPLE EXTERNAL INTEGRATED SUMMATIVE ASSESSMENT  
FOR PHARMACIST'S ASSISTANT (POST-BASIC)  
(ALL SECTORS)**

TIME ALLOWED:	270 MINUTES (4.5 HOURS)
MAXIMUM MARKS:	120 MARKS
NUMBER OF PAGES:	21 PAGES
PASS MARK:	50% and 60% subminimum for calculations

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**Examination Instructions**

- (a) All questions are worth one mark. There is no negative marking for selecting an incorrect answer.
- (b) There are four (4) answer options per question. There is only ONE CORRECT answer per question.
- (c) This is an open-book examination. Candidates may use textbooks or personal notes. The following online reference materials can be accessed on the online exam page: Good Pharmacy Practice manual (GPP), National Drug Policy (NDP), Good Manufacturing Practice (GMP) and Essential Medicine Lists (EML)

## **ELO 1: Apply basic scientific knowledge to provide technical support in delivering pharmaceutical services**

1. Which of the following items MAY be sold over the counter by a pharmacist's assistant (post-basic) under the direct supervision of a pharmacist?
  - (a) Albendazole tablets
  - (b) Cetirizine tablets
  - (c) Terbinafine tablets
  - (d) Prochlorperazine tablets
2. Which of the following forms part of the code of conduct of a pharmacist's assistant (post-basic)?
  - (a) General housekeeping
  - (b) Compounding of medicine
  - (c) Wellbeing of patients
  - (d) Delivery of medicine to patients
3. Which tasks MAY a pharmacist's assistant (post-basic) perform during the dispensing process of methylphenidate tablets in a community pharmacy?
  - (a) Phase 2 of the dispensing process
  - (b) Contacting the prescriber about the legality
  - (c) Interpretation and evaluation of the prescription
  - (d) They may not assist with this prescription at all
4. Who MAY update and write protocols for a dispensary at a PHC clinic?
  - (a) Doctor
  - (b) Matron
  - (c) Nursing sister
  - (d) Pharmacist
5. How often MUST a pharmacist visit a PHC clinic dispensary that is operated by a pharmacist's assistant (post-basic) working under indirect supervision?
  - (a) Weekly
  - (b) Monthly
  - (c) Every 2 months
  - (d) Bi-annually
6. What can a pharmacist's assistant (post-basic) working under direct supervision of a pharmacist do when a prescription for a Schedule 5 medicine is presented at an institutional pharmacy?
  - (a) Evaluate the prescription
  - (b) Dispense the required medication for 7 days only
  - (c) Pick and pack the medicine
  - (d) Discuss interactions with the patient
7. What information MUST be recorded when selling mebendazole 500 mg tablet to a patient?

- (a) Address of the patient
  - (b) ID number of the patient
  - (c) Name of the pharmacist's assistant who sold it
  - (d) Name of the manufacturer of the medicine
8. Which of the following actions MAY be performed by a pharmacist's assistant (post-basic) in a community pharmacy?
- (a) You may register as the tutor of a pharmacist's assistant (learner basic) with the SAPC
  - (b) You may dispense repeat prescription under indirect supervision
  - (c) You may keep the keys of the schedule 6 cupboard to do the quarterly balance of the S6 register
  - (d) You may order schedule 6 medicines from a wholesaler under the direct supervision of a pharmacist
9. Which of the following statements is TRUE regarding Good Manufacturing Practice for production and quality control?
- (a) The same person heads up both departments
  - (b) The Quality Control Department reports to Production Department
  - (c) The Production Department must report to the Quality Control
  - (d) The Production and Quality Control Departments must operate independently
10. Which of the following statements is the MOST appropriate when omitting a medicine on a prescription during dispensing in a PHC clinic?
- (a) May be done if requested by the patient
  - (b) May be done if indicated in pencil on the prescription
  - (c) May be done without advising the patient
  - (d) May be done if the stock holding of the medicine is zero
11. Which of the following pharmacy personnel is allowed to disclose patient information to another healthcare professional in an institutional pharmacy as guided by the Code of Conduct?
- (a) Pharmacist's assistant (basic)
  - (b) Pharmacist's assistant (post-basic)
  - (c) Pharmacist intern
  - (d) Pharmacist
12. What would be the MOST appropriate medicine for a doctor to prescribe for a patient who has severe vomiting?
- (a) Cyclizine tablets
  - (b) Prochlorperazine tablets
  - (c) Cinnarizine capsules
  - (d) Metoclopramide injection
13. Which of the following preparations is a non-sterile preparation?
- (a) Diclofenac injection
  - (b) Tobramycin drops
  - (c) Acetic acid drops
  - (d) Chloramphenicol ointment

14. What type of water can be used to reconstitute a sterile pharmaceutical preparation?
- Tap water
  - Purified water
  - Water for injection
  - Mineral water
15. What does the term "*impalpable*" mean?
- Not perceptible to taste
  - Not perceptible to the touch
  - Not perceptible to sound
  - Not perceptible to light
16. Which of the following formulations require minimal levels of aseptic techniques?
- Cytotoxic preparations
  - Oral solutions
  - Solutions administered via IV route
  - Total parenteral nutrition solutions
17. Convert 4% w/v to mg/ml.
- 0.4 mg/ml
  - 4 mg/ml
  - 40 mg/ml
  - 400 mg/ml
18. What does a 16% w/w concentration mean?
- 80 mg per 50 g
  - 16 g per 100 g
  - 80 g per 5 kg
  - 160 g per 10 g
19. A sterile solution contains 600 micrograms of medicine in each millilitre. How many milligrams of the medicine would a patient receive from the intravenous infusion of 1 litre of the solution?
- 6 mg
  - 60 mg
  - 600 mg
  - 6000 mg
20. An ophthalmic suspension composition per ml is as follows:

Polymyxin B sulphate	–	6 000 units
Neomycin sulphate	–	3 500 units
Dexamethasone	–	1.000 mg
Preserved with Benzalkonium chloride	–	0.004% w/v

How much benzalkonium chloride in milligrams (mg) is provided in a 10 ml container of the formulation?

- (a) 0.0004 mg
  - (b) 0.004 mg
  - (c) 0.04 mg
  - (d) 0.4 mg
21. Which method of sterilisation will be suitable for heat resistant, non-aqueous powder products?
- (a) Dry heat
  - (b) Moist heat
  - (c) Filtration
  - (d) Fumigants
22. Which part of the anatomy does the cornea form a part of?
- (a) Ear
  - (b) Lung
  - (c) Eye
  - (d) Kidney
23. Which of the following hormones, as secreted by the pancreas, lowers blood sugar?
- (a) Prolactin
  - (b) Growth hormone
  - (c) Glucagon
  - (d) Insulin
24. Which of the following is part of the male reproductive system?
- (a) Cervix
  - (b) Vas deferens
  - (c) Cochlear nerve
  - (d) Retina
25. To which of the following nutrients do amino acids form essential components of?
- (a) Carbohydrate
  - (b) Protein
  - (c) Fat
  - (d) Vitamin
26. Which of the following is TRUE regarding the muscular system?
- (a) It allows movement and maintains body posture
  - (b) It consists of skeletal muscles only
  - (c) It serves to protect the body's organs
  - (d) It consists of bones and two types of muscles
27. What is the study of the normal functioning of the living organisms and their parts?
- (a) Histology
  - (b) Physiology
  - (c) Pathology
  - (d) Anatomy

28. What is the CORRECT term to use when the cause of a disease is unknown?
- (a) Idiopathic
  - (b) Chronic
  - (c) Acute
  - (d) Acquired
29. Which body system is dermatology linked to?
- (a) Gastrointestinal system
  - (b) Respiratory system
  - (c) Integumentary system
  - (d) Cardiovascular system
30. What does the term geriatric refer to?
- (a) Children
  - (b) Adults
  - (c) Neonates
  - (d) Elderly
31. Which of the following statements refer to glaucoma?
- (a) Raised blood pressure
  - (b) Raised intestinal pressure
  - (c) Raised intraocular pressure
  - (d) Raised pulmonary pressure
32. Which of the following glands are affected by mumps?
- (a) Adrenal
  - (b) Pituitary
  - (c) Salivary
  - (c) Thyroid
33. Which of the following statements is TRUE regarding viral conjunctivitis?
- (a) Conjunctivitis needs to be treated with antibiotics
  - (b) Conjunctivitis is a condition involving the retina of the eye
  - (c) Recommend regular hand washing after touching the eye
  - (d) Viral conjunctivitis is not contagious
34. A patient with a viral infection has been complaining of headaches, muscles pains, fever and a congested nose for a few days. Which organ system from the list below is MOST likely affected by this infection?
- (a) Muscular system
  - (b) Nervous system
  - (c) Respiratory system
  - (d) Skeletal system
35. Which lifestyle modification is the MOST appropriate to recommend for patients with hypertension?

- (a) Consume a diet containing saturated fat foods
- (b) Consume high protein diet
- (c) Drink less than 500 ml of water per day
- (d) Restrict salt intake

36. Which of the following are the signs and symptoms of tuberculosis (TB) in an adult patient?

- (a) Weight gain
- (b) Night sweats
- (c) Frequent urination
- (d) Urticaria

**ELO 2: Provide technical support for the receiving, storing, picking, packing and distributing orders. To perform stock counts and participate in stock-taking in compliance with cGMP, GWDP and GPP requirements**

37. With regards to GDP/GWP and GMP, how must the instructions and standard operating procedures be written?

- (a) In an instructional form
- (b) In an ambiguous language
- (c) To be applicable to general facilities
- (d) To give general guidelines

38. Which of the following activities pertaining to the wholesale pharmacy MAY be performed by a pharmacist's assistant (post-basic) under the direct personal supervision of a pharmacist?

- (a) The ordering of medicine and related substances up to and including Schedule 6
- (b) Approve and sign off all advertising and promotional materials
- (c) Develop, document and approve the quality improvement plan for the wholesale pharmacy
- (d) Ensure that standards for the operation of wholesale pharmacy services are established

39. The following table indicates the sale figures over the last 6 months for clotrimazole cream. Calculate the average monthly consumption of clotrimazole cream.

Month	Amount of creams sold
1	13
2	17
3	8
4	12
5	21
6	17

- (a) 8
- (b) 13
- (c) 15
- (d) 17

40. Calculate the lead time of paracetamol tablets if it takes the supplier 7 days to deliver the stock you have ordered.
- (a) 0.23  
 (b) 0.25  
 (c) 1  
 (d) 7
41. You receive 50 boxes containing 60 units each. Three boxes fell and each were damaged by 15%, 25% and 45% respectively. Calculate the total amount of units of product that was not damaged.
- (a) 2898  
 (b) 2949  
 (c) 3011  
 (d) 3051
42. Which of the following require minimum validation as stipulated by the GWP for the Validation Master Plan of a facility?
- (a) Water cooling system  
 (b) Computerised systems  
 (c) Pallet jacks  
 (d) Conveyor belts
43. Paracetamol 500 mg tablets, pack size of 20, have a maximum stock level of 60 and a minimum stock level of 12. Calculate re-order quantity.
- (a) 0  
 (b) 24  
 (c) 48  
 (d) 60
44. You have 37 units of hydrocortisone cream on the shelf. The expiry date is 5 months from now. If you work on average sales per month, how many boxes would expire before being sold?

The sales figure of clotrimazole cream are as follows:

Month	Units sold
1	3
2	12
3	8
4	4
5	6
6	3

- (a) 0  
 (b) 3  
 (c) 6  
 (d) 7
45. What is the total value of expired medicine for a PHC clinic dispensary below?

List of expired medicines:

Description	Unit	Quantity on shelf	Unit Price
Aspirin tablets 300 mg	Tablets	30	R 12.00
Paracetamol 120 mg/5 ml syrup	Bottle	5	R 7.00
Aqueous cream 15 g	Tube	1	R 15.00

- (a) R 34.00  
(b) R 365.00  
(c) R 410.00  
(d) R 500.00
46. What advice will you give to the general public regarding safe disposal of expired medicines they have in their homes?
- (a) Bury expired medicines in the ground  
(b) Flush expired medicines down the toilet or down the drain  
(c) Take expired medicines to the nearest pharmacy  
(d) Throw all expired medicines in the bin for refuse collection
47. What is the MOST appropriate way to handle a scheduled medicine that has been discontinued due to shortage of raw materials but has not yet expired?
- (a) Keep it on the shelf and sell it if there is a demand for it  
(b) Immediately remove it from the shelf and dispose of it  
(c) Keep it on the shelf and reduce the price  
(d) Keep it for patients who request a sample of the medicine
48. Which of the following is the MOST appropriate strategy that could be used to manage the stock level of a slow-moving item?
- (a) Determine if the item can be substituted for another medicine if appropriate  
(b) Determine cost of the item and write off excess stock  
(c) Determine the lead time from the supplier for the item  
(d) Determine the demand and advertise the item on social media
49. Which of the following should be disregarded when conducting stock take in a pharmacy?
- (a) Expired medicines in the stock holding area  
(b) Medicines at the dispensary  
(c) Slow moving products in the pharmacy  
(d) Loose tablets in open containers
50. How should records older than 5 years be handled in the pharmacy?
- (a) Liase with SAHPRA for collection  
(b) Kept for an additional 5 years in storage  
(c) Shipped to SAPC offices  
(d) Destroyed according to regulations
51. Which of the following statements would be TRUE regarding medication returned by a patient four days after it was dispensed at a community pharmacy?
- (a) You may only take back medicine from a patient if they return it within 48 hours

- (b) Tell the patient that you may not take it back and that they should destroy it at home
  - (c) Take back the medicine from the patient and have it disposed of in the correct way
  - (d) Inspect the medicine for damages and only reuse it if it is blister packed
52. Which statement is TRUE regarding expired stock?
- (a) Expired medicine must be dispensed within one month after it expired
  - (b) Expired medicine may be used for up to six months past the expiry date
  - (c) Expired medicine can be used by the pharmacist to assist employees
  - (d) Expired medicine should be quarantined for destruction
53. A pharmacist's assistant (post-basic) is asked to assist the pharmacist with the destruction of schedule 4 medicines in an institutional pharmacy. Which of the following statements is TRUE referring to such destruction?
- (a) Medicines that have been received from patients do not have to be altered
  - (b) Medicines that have expired and recalled do not have to be altered
  - (c) Medicines may only be destroyed by an authorised facility
  - (d) Medicines that have been destructed need no further documentation
54. Which of the following criteria is used in separating expired medicines that are destined for destruction?
- (a) Separated according to medication names
  - (b) Separated according to expiry dates
  - (c) Separated according to colour of medication
  - (d) Separated according dosage form

**ELO 3: Provide technical support for the manufacture, packaging and re-packaging of non-sterile medicines and scheduled substances**

55. Which of the following statements is TRUE with regards to ancillary areas in the manufacturing plant?
- (a) Toilets should be directly accessed from the storage areas
  - (b) Maintenance workshops should as close as possible be part of production areas
  - (c) Rest and refreshment rooms should be separate from other areas
  - (d) Animal houses should be part of the veterinary production area
56. Which of the following statement is the MOST appropriate regarding equipment in the manufacturing plant?
- (a) Repair and maintenance operations should present a hazard to the quality of the products
  - (b) Equipment should be installed in such a way as to prevent any risk of error or contamination
  - (c) Balances and measuring equipment of an appropriate range and precision are not a necessity
  - (d) Measuring, weighing, recording and control equipment should not be calibrated if they are qualified
57. Identify the content of a "certificate of analysis"?

- (a) Protocols regarding the analysis performed on final products
  - (b) Agreement on the calibration and validation of equipment
  - (c) Documents on test results on samples of the starting materials
  - (d) Reports on the registration of qualified raw material suppliers
58. What does the "Specification" document provide reference for, in relation to starting materials?
- (a) Directions for sampling and testing
  - (b) Only to non-pharmacopeia monograph
  - (c) Directions for storage of thermolabile products
  - (d) The minimum period of storage before re-examination
59. Production areas should be effectively ventilated, with air control facilities and filtration appropriate to the products handled, the operations undertaken within them and to the external environment. Which of the following represent the recommended filtration of the tablet compression booth with recirculation of air?
- (a) Primary filters only
  - (b) Primary + secondary + tertiary filters
  - (c) Primary + secondary filters
  - (d) Tertiary filters only
60. Which statement is TRUE with regards to the storage of quarantined raw materials?
- (a) Raw materials that have been quarantined in a separate area do not require labelling
  - (b) Sampling of quarantined raw materials can never be performed in the storage area
  - (c) A segregated storage area is not necessary for rejected raw materials after testing
  - (d) A system other than physical quarantine of raw materials should ensure equivalent security
61. What is the first action you will take after receiving 10 bags of the active pharmaceutical ingredient in a manufacturing facility?
- (a) Transfer the stock to dispensary
  - (b) Transfer the stock to quarantine
  - (c) Transfer the stock to raw materials store
  - (d) Transfer the stock to the manufacturing area
62. Name the department in the manufacturing environment that you will associate mostly with the sampling, compiling of specifications and testing of material functions.
- (a) Quality assurance
  - (b) Production
  - (c) Quality control
  - (d) Procurement
63. Which of the following statements is TRUE regarding the Finished Pharmaceutical Product (FPP) manufacturer?
- (a) The FPP must conduct full analysis on all suppliers of material as per GMP
  - (b) Only SAHPRA can conduct full analysis on all suppliers of materials as per GMP
  - (c) The FPP conduct audits only on the suppliers of active ingredients
  - (d) The FPP must instruct the suppliers to do self-audits only and supply the results

64. Starting materials should only be dispensed by designated persons, according to a written procedure in a manufacturing facility. Which of the following statements is TRUE?
- (a) Each dispensed material and its weight or volume should be checked, recorded and mixed together for easy transfer to production
  - (b) Each dispensed material and its weight or volume should be independently checked, and the check recorded
  - (c) No need to record the weighed raw material and its weight or volume as long as the picking slip is included in the documentation
  - (d) No need to record the weighed raw material and its weight or volume as long as it correlates to the batch manufacturing document
65. How much codeine hydrochloride (solubility 1 in 20 of water) will dissolve in 150 ml of water?
- (a) 15.5 g
  - (b) 8.5 g
  - (c) 7.5 g
  - (d) 5.5 g
66. A manufacturer wishes to produce a batch of compressed tablets each containing 800 mg active ingredient, with a mean weight of 1200 mg. What is the weight of active ingredient that will be required for a total batch size of 720 kg?
- (a) 400 kg
  - (b) 420 kg
  - (c) 480 kg
  - (d) 600 kg
67. Which statement is TRUE regarding in-process control?
- (a) Environmental in-process controls should be carried out but not recorded
  - (b) If in-process controls pose no risk, it can be carried out in the production area
  - (c) The instructions for any in-process controls should not have any acceptance limits
  - (d) The in-process control tests do not apply during packaging operations
68. Which statement is TRUE with regards to in-process control during manufacturing?
- (a) Only pharmacists can record and sign the checks
  - (b) Only checks on tablet manufacturing are recorded and signed
  - (c) The results must be recorded and signed by person conducting the check
  - (d) Checks during packaging do not need to be recorded and signed
69. Calculate the number of labels destroyed during the packing operation of 12 000 units using the information below:
- Weight of one label: 0.5 g  
Weight of scrap labels: 349.5 g  
Weight of labels taken as samples during line opening: 5 g  
Weight of labels returned to stores: 400 g
- (a) 69.9
  - (b) 699
  - (c) 709

- (d) 1509
70. Stores issued 400 g of the labels for the packaging of 3 000 units, each label weighs 0.1 g. 5 g were returned to the store and the remaining labels were damaged. Calculate the number of damaged labels?
- (a) 950  
(b) 500  
(c) 95  
(d) 50
71. What information should be included in the records of receipts of materials?
- (a) The expected yields  
(b) Details of the delivery vehicle  
(c) Total quantity and number of containers received  
(d) Fumigation of pallets received
72. Until which date must the following batch (lot: 51274) of paracetamol tablets manufacturing records be kept, if it was manufactured on 15 January 2020 and expires on 01/2024?
- (a) 31 January 2025  
(b) 15 January 2024  
(c) 15 January 2021  
(d) 31 January 2021

**ELO 4: Provide technical support for the compounding, manipulation and preparation of non-sterile medicines and scheduled substances (extemporaneous compounding) in compliance with standards as described in the GPP rules and GMP guidelines under the supervision of a Pharmacist.**

73. Which of the following statements is TRUE regarding aseptic technique?
- (a) It is a method designed to prevent contamination from microorganisms  
(b) It does not require specialised training  
(c) It is used when compounding non-sterile mixtures for use by patients  
(d) Compliance with aseptic technique is not stipulated in the GPP
74. Which of the following requirements must be met before a pharmacist's assistant (post-basic) can do compounding in a PHC clinic dispensary?
- (a) Prescribed compounding equipment must be available  
(b) Dispensing balance must be maintained every two years  
(c) Equipment wash basins has a supply of hot water only  
(d) Compounding can take place at the dispensing counter
75. To prepare 100 g of a mixture 3 g of zinc oxide is required. How much zinc oxide would you need to prepare 45 g of the same mixture?
- (a) 1.35 g  
(b) 1.55 g  
(c) 2.45 g  
(d) 6.60 g

76. You need to prepare 1000 ml of a mixture containing 0.05%  $\frac{w}{v}$  chlorhexidine. How much of a 5%  $\frac{w}{v}$  chlorhexidine solution is required?
- (a) 5 ml  
 (b) 10 ml  
 (c) 50 ml  
 (d) 100 ml
77. You need to compound 100 g of a 1:4 hydrocortisone and aqueous cream mixture. Calculate the quantity of hydrocortisone cream required.
- (a) 10 g  
 (b) 20 g  
 (c) 25 g  
 (d) 100 g
78. A pharmacist requests that you prepare 5 kg of a 25% urea in emulsifying ointment mixture. What is the quantity of urea that you require to make this ointment?
- (a) 1000 g  
 (b) 1250 g  
 (c) 1750 g  
 (d) 2000 g
79. You are required to assist in the preparation of 500 ml of a 1 in 25 solution of Condy's Crystals (potassium permanganate). What quantity of potassium permanganate would you use to make this solution?
- (a) 4 g  
 (b) 8 g  
 (c) 10 g  
 (d) 20 g
80. Potassium chloride syrup is compounded using the formula shown in the table below.

Ingredients	Quantity
Potassium Chloride Powder	10 g
Syrup simplex	70 ml
Distilled Water	Add to 200 ml

- How much of the syrup simplex should be measured out for compounding of a 150 ml potassium chloride syrup formulation?
- (a) 70 ml  
 (b) 57.5 ml  
 (c) 52.5 ml  
 (d) 50 ml
81. Why is it important for patients to follow the instruction "*shake the bottle before use*" on some reconstituted formulations?
- (a) To ensure all particles dissolve in the liquid before use  
 (b) To disperse particles evenly throughout the formulation  
 (c) To ensure that all air bubbles in the suspension are expelled

- (d) To activate particles before administration by the patient
82. What is the final step during the compounding of a suspension?
- (a) File the prescription and attach documents according to SOP for a period of 5 years
  - (b) Report any discrepancies or deviations to the pharmacist and take corrective action according to instructions received
  - (c) Give the final, compounded product to the pharmacist, to hand to the patient and to do the counselling
  - (d) Clean the work-area and equipment according to SOP and complete the cleaning logbooks
83. Which statement is TRUE when referring to an emulsion?
- (a) Biphasic liquid preparation contains three immiscible liquids
  - (b) The liquid which is converted into globules is called the continuous phase
  - (c) The liquid in which the globules are dispersed is called the disperse phase
  - (d) An emulsifying agent allows two immiscible liquids to be dispersed
84. Which of the following would you need to keep record of when compounding an ointment for a patient?
- (a) Name of the supplier of the ointment jar
  - (b) Date of compounding
  - (c) Names of the preservative of every ingredient
  - (d) Schedule of the final product
85. Which document is used as a tracing document when compounding an extemporaneous mixture in a community pharmacy?
- (a) Prescription
  - (b) Formulation document
  - (c) Invoice
  - (d) Delivery note
86. Which of the following statements is TRUE regarding the standard operating procedure (SOP) for the cleaning of equipment used for compounding?
- (a) SOP will assign responsibility for cleaning of equipment
  - (b) SOP is generic and relevant to all facilities regarding cleaning
  - (c) Cleaning SOP do not need to be reviewed
  - (d) SOP can be approved by pharmacist's assistant (post-basic)
87. Which of the following BEST describes the importance for equipment to be checked for cleanliness before use in compounding?
- (a) To prevent spillages
  - (b) To prevent damage to equipment
  - (c) To prevent cross-contamination
  - (d) To prevent degradation of raw materials
88. Which of the following is TRUE regarding the adverse drug reaction and product quality problem reporting form (ARF 1)?

- (a) It applies to complementary medicines
  - (b) It applies to patient compliance
  - (c) It applies to reporting only if you have all the details
  - (d) It applies to the public sector only
89. Which of the following can be reported regarding product quality on adverse reaction and product quality problem reporting form (ARF 1)?
- (a) Discontinued product
  - (b) Suspected contamination
  - (c) Expired product
  - (d) Receipt of incorrect product
90. FIFO / FEFO principles form part of good housekeeping and assist in which aspect of pharmacy?
- (a) Reduction in damaged stock
  - (b) Reduction in overstock
  - (c) Reduction in slow moving medicines
  - (d) Reduction in expired medicines

**ELO 5: Provide technical support to dispense prescriptions and to sell Schedule 0, 1 and 2 medicines in compliance with legal requirements, including GPP**

91. Which area of the pharmacy is the best place to advise the patient regarding the treatment of scabies?
- (a) At the dispensary counter separated by semi-private partitioning
  - (b) At the dispensary by the non-prescription medicine shelves
  - (c) In the front shop at the point of sale area
  - (d) In the stock receiving area
92. Which of the following statements is TRUE regarding communication with patients?
- (a) Patients that are not clear on medicine usage may use it incorrectly
  - (b) Pharmacy professionals should impose their personal beliefs on patients
  - (c) Pharmacy professionals practice only verbal communication
  - (d) Patients may better understand instructions if scientific jargon is used
93. A patient is prescribed to take 210 mg of the medicine once daily. The medicine is available as a preparation containing 70 mg/5 ml. Which of the following is the CORRECT instructions for the label?
- (a) Take 3 ml three times daily
  - (b) Take 5 ml three times daily
  - (c) Take 3 ml once daily
  - (d) Take 15 ml once daily

94. You receive a prescription for:

Naproxen 750 mg stat, then 250 mg 8 hourly for 4 days

How many 250 mg tablets will you dispense?

- (a) 12
- (b) 15
- (c) 20
- (d) 28

95. A prescription for Prednisone tablets was dispensed with the following instructions:

Prednisone 10 mg twice a day for 3 days, then 10 mg daily for 3 days and then 5 mg daily for 3 days

After 4 days the patient returns. how many tablets should the patient have left if he used it correctly?

- (a) 3
- (b) 5
- (c) 7
- (d) 10

96. Which of the following is required on the prescription as per the Medicines and Related Substance Act, 101 of 1965?

- (a) Name of the manufacturer
- (b) Dosage form of the medication
- (c) Maximum cost of the medication
- (d) Storage requirement of medication

97. What does the Latin abbreviation "qid" mean?

- (a) Four hourly
- (b) Before meals
- (c) Four times a day
- (d) As needed

98. A prescription for a child, aged 10 months, weighing 9 kg, states:

Amoxicillin 300 mg 8 hourly for 5 days

You have amoxicillin 250 mg/5 ml suspension in stock. How many millilitres should the child receive per dose?

- (a) 2.5 ml
- (b) 5.0 ml
- (c) 6.0 ml
- (d) 8.0 ml

99. The insulin stocked in the hospital pharmacy contains 300 units per ml in a 3 ml vial.

The prescription states:

Insulin: Administer 10 units bd

How many days would one vial last?

- (a) 15

- (b) 30
  - (c) 45
  - (d) 60
100. A 5-year-old takes sodium valproate 100 mg twice a day for his epilepsy. How many 240 ml bottles of sodium valproate (200 mg/5 ml) should be dispensed for him to have medication that will last for 2 months?
- (a) 1.0
  - (b) 1.5
  - (c) 2.0
  - (d) 3.0
101. Which role can be performed by a pharmacist's assistant (post basic) in the dispensing of simvastatin to a patient in an institutional pharmacy?
- (a) Phase 2 only
  - (b) Phase 1 and 2
  - (c) Phase 2 and 3
  - (d) Phase 1, 2 and 3
102. Which medicine increases the risk of developing Reye's Syndrome if dispensed to an 11-year-old patient who is recovering from a viral infection?
- (a) Ibuprofen
  - (b) Aspirin
  - (c) Diclofenac
  - (d) Indomethacin
103. A patient using warfarin wants to buy a combination pain tablet (Ibuprofen 200 mg/Paracetamol 350 mg/Codeine phosphate 10 mg). What would be the best way to handle the situation?
- (a) Recommend an alternative pain treatment
  - (b) Refer the patient to the pharmacist
  - (c) Refer the patient to the doctor
  - (d) Record details as needed for S2 register and dispense
104. A patient requests a pharmacist's assistant (post-basic) to add a urinary alkalinizer to her prescription of ciprofloxacin. You recall that alkalinizers reduce the absorption of ciprofloxacin. What is the MOST appropriate action to take?
- (a) Dispense both medicines despite the interaction
  - (b) Consult the pharmacist and resolve to space the doses
  - (c) Advise against the use of ciprofloxacin
  - (d) Advise the patient to drink less fluids
105. You dispense cefpodoxime suspension for a 5-year-old patient under the direct supervision of a pharmacist. Which of the following statements is the MOST appropriate to tell the patient's mother?
- (a) A positive Coombs' test may develop in some patients
  - (b) Stevens-Johnson syndrome occurs rarely
  - (c) Shake the bottle before administering the medicine

- (d) Do not use the medicine for longer than 10 days
106. What would you suggest to a patient struggling with insomnia to use before bedtime?
- (a) Alcohol
  - (b) Caffeine
  - (c) Chamomile
  - (d) Nicotine
107. A pharmacist's assistant (post-basic) identifies that a patient has athlete's foot and advises the use of clotrimazole topical cream for 28 days. How often should this be applied?
- (a) Once a day
  - (b) Twice a day
  - (c) Three times a day
  - (d) Once a week
108. In addition to the instructions on how to take a medicine, what safety information will you provide to a machine operator to whom you have dispensed cetirizine 10 mg tablets?
- (a) May cause drowsiness
  - (b) May cause indigestion
  - (c) May cause insomnia
  - (d) May cause ulcers
109. A prescription states the following:
- Enalapril 40 mg once daily for 30 days
- Which of the following would be the MOST appropriate in a community pharmacy?
- (a) Note on the prescription that the dose is high
  - (b) Phone the doctor to confirm the dose
  - (c) Take the prescription to the pharmacist to confirm the dose
  - (d) Confirm the dosage with the patient
110. When MUST a prescription be referred to a pharmacist by a pharmacist's assistant (post-basic) working under indirect supervision?
- (a) The prescription is new for a patient with co-morbidities
  - (b) The prescription is for essential medicines
  - (c) The prescription shows no evidence of medicine abuse
  - (d) The prescription is computer generated
111. What information should be recorded when opening a profile for a patient requesting medication in a community pharmacy?
- (a) Medication history
  - (b) Date of opening the profile
  - (c) Allergies of the patient
  - (d) Work address of the patient
112. Which of the following is an acceptable method for counting out 10 tablets?

- (a) Quick count on your hand after wearing gloves
- (b) Quick count on the palm of your hand
- (c) Use of a clean piece of paper
- (d) Use of a clean counting tray

113. What is the MOST appropriate dose of paracetamol syrup for a 2-year-old child? The syrup is available as 120 mg/5 ml.

- (a) 5 ml q8h
- (b) 15 ml q4h
- (c) 15 ml stat followed by 10 ml q4h
- (d) 10 ml q6h

114. Calculate the number of tablets required for a 9-year-old child (weighing 35 kg) visiting a malarial area for 5 days. The dosage of atovaquone/proguanil is as follow:

Weight (kg)	Atovaquone / Proguanil HCl Total Daily Dose	Dosage Regimen
11-20	62.5 mg/25 mg	1 paediatric tablet daily
21-30	125 mg/50 mg	2 paediatric tablets as a single daily dose
31-40	187.5 mg/75 mg	3 paediatric tablets as a single daily dose
>40	250 mg/100 mg	1 tablet (adult strength) as a single daily dose

It should be started 2 days before entering a malaria-endemic area and continued daily during the stay and for 7 days after return.

- (a) 14
- (b) 26
- (c) 28
- (d) 42

115. Which type of cough preparation would be the MOST appropriate to recommend for a dry cough?

- (a) Expectorant
- (b) Cough suppressant
- (c) Bronchodilator
- (d) Mucolytic

116. What pain medication is MOST appropriate for a 1-year-old child?

- (a) Paracetamol syrup
- (b) Diclofenac drops
- (c) Ibuprofen suspension
- (d) Indomethacin suppositories

117. A pharmacist's assistant (post-basic) recommends carbocysteine syrup, 125 mg/5 ml to a 2-year-old child. The recommended dose is 62.5 mg. What dose is to be given to the child?

- (a) 1.0 ml
- (b) 2.0 ml
- (c) 2.5 ml

- (d) 5.0 ml
118. A patient complains of gastric acid regurgitation and heartburn not relieved by regular antacids. The patient is advised to take omeprazole 10 mg capsules for 14 days. What is the recommended dosage interval?
- (a) Every 6 hours
  - (b) Every 8 hours
  - (c) Every 12 hours
  - (d) Every 24 hours
119. The pharmacist recommends a preparation of 0.5% ( $w/w$ ) hydrocortisone topical cream for a patient. Given that the patient shall apply 2 g of the cream twice a day, how many 25 g tubes of 1% ( $w/w$ ) hydrocortisone cream are needed to compound a month's supply (30 days) of this formulation?
- (a) 4
  - (b) 3
  - (c) 2
  - (d) 1
120. A 30-year-old man is suffering from allergic rhinitis. Which medication can be dispensed as Pharmacist-Initiated Therapy?
- (a) Chlorpheniramine tablets
  - (b) Betamethasone drops
  - (c) Fluticasone nasules
  - (d) Prednisone tablets

END OF PAPER