

**Question 1.**

1.1 Answer the following questions in the capacity of a community pharmacist

a. State how you would verify the legality of a prescription.

- Check if the prescription is signed by the prescriber
- Check if the SLMC registration number of the prescriber is indicated on the prescription
- Check if the prescriber seal is there on the prescription
- Check the date of the prescription. Very outdated prescriptions may indicate misuse
- Check if dispensing seals by a pharmacist is already present in the prescription. May be reusing no-repeat prescriptions.

SLMC #  
Signature.  
P. seal  
date  
dispensing seal

**(2 marks x any 4 points)**

b. Advise a patient on reconstituting and storing amoxicillin powder for oral use.

- 1 - Shake the bottle to loosen the powder.
- 2 - Add boiled cooled water half way up the bottle.
- 3 - Shake until powder is completely dissolved.
- 4 - Top up to the mark shown on bottle label using boiled cooled water and shake again.
- 5 - Store in refrigerator (not freeze) after reconstituting.
- 6 - Shake before use.
- 7 - Use within seven days of reconstituting.

**(all points = 8 marks, if not = 0 marks)**

c. List five (5) types of written information that should be provided to a patient when dispensing prescription only medicines.

- Name and strength of medicine
- Frequency of administration
- Number of units to be administered at a time (dose)
- Duration of administration
- Before or after meals if applicable
- Total number of units dispensed

[Some students may write 'dose', route of administration, dosage form which could also be awarded marks]

**All 5 = 8 marks**

**4 = 6 marks**

**3 = 5 marks**

**2 = 3 marks**

**1 = 1 marks**

d. State four (4) precautions to be taken when storing prescription only medicine packs in the dispensing area.

- Store in a way that is not reachable to patients
- Store methodically [alphabetical, pharmacological group]
- Store in a way that labels are visible
- Store in original containers
- Store in appropriate environmental conditions as indicated by the manufacturer
- Store parenteral/oral/local applications separately — lock & key
- Adequately differentiate look-alike-sound-alike (LASA) medicines  
[or any other suitable answer]

FEFO / FIFO.

**(any 4 x 2 marks)**

1.2 According to the National Medicines Regulatory Act No. 5 of 2015, differentiate between Schedule I and Schedule II medicines.

- Schedule I medicines **(each 1 mark)**
  - Prescription not needed
  - Can be sold in pharmacy or grocery
- Schedule II A **(each 1.5 marks)**
  - Prescription not needed
  - Should be sold in pharmacy by a registered pharmacist
- Schedule IIB **(each 1.5 marks)**
  - Prescription is needed
  - Should be sold in pharmacy by a registered pharmacist

### Question 2.

2.1 Write five (5) important features of dosage forms

- i. It provides a safe and convenient delivery of accurate dose
- ii. It protects the drug from oxidation, hydrolysis
- iii. Provide sustained release action
- iv. It provides drugs within the body tissues (injection)
- v. Provide maximum drug action <sup>form</sup> topical administration sites. eg. Creams, ointments
- vi. To conceal bitter taste
- vii. To provide the optimum drug action through inhalation therapy
- viii. To identify many dosage forms.
- ix. To provide liquid dosage form of the drugs soluble in a suitable vehicle

**(any 5 x 2 marks) = 10 marks**

2.2 Write five (5) resources that are necessary for good compounding and dispensing practice

- i. Suitable well maintained premises
- ii. An adequate supply of equipment
- iii. Well-trained personnel
- iv. Strict control procedures to assure quality of the product
- v. Readily accessible information sources

(each 2 marks = 10 marks)

2.3 What are the precautions necessary when using eye drops?

- wash hand.
- i. Dropper is separate
  - ii. Never touch the dropper surface
  - iii. Never rinse the dropper
  - iv. <sup>never</sup> Never use eye drops that have change colour
  - v. Avoid contaminating the dropper when cap removed
  - vi. After instillation of drops, do not close eyes tightly or blink, more this may remove the medicine
  - vii. Don't touch the dropper with the eye lid.

(any 5 x 2 marks = 10 marks)

2.4 List five (5) properties of ointment bases.

- i. Spread and softens when applied to the skin
- ii. Inert with medicaments, odorless, smooth
- iii. Economical and reasonably available
- iv. Physically, chemically stable
- v. Not irritant or not sensitisation of the skin

(5 X 2 marks = 10 marks)

**Question 3.**

3. Write five (5) functions of each of the following healthcare institutions in Sri Lanka.

3.1 Medical Supplies Division

- i. Receiving and consolidating annual estimates to forecast national annual requirements of medical supplies
- ii. Receiving consignments of items ordered <sup>from</sup> SPC
- iii. Storing the items received <sup>from</sup> SPC
- iv. Distributing medical supplies to RMSD or institutions coming under the MOH directly (line ministry institutions)
- v. Involved in quality assurance activities. Such as quality failures, adverse reaction monitoring
- vi. Coordinating and conducting in-service training to the staff

**(any 5 x 2 marks = 10 marks)**

3.2. State Pharmaceuticals Corporation of Sri Lanka (SPC)

1. Procure the drugs to the Ministry of Health and to the private sector
2. Supply drugs to the Ministry of Health and to ~~be~~ the private sector
3. Quality testing pharmaceuticals that SPC supplied
4. Distribution of SPC products islandwide through Rajya Osusalal and Franchises Osusala
5. Production of Jeevani/oral Rehydration salt, and dextrose packs
6. Conducting awaness programme to general public

**(5 x 2 marks = 10 marks)**

3.3 A well-defined procurement and inventory management will ensure availability of necessary medicines at all-times in a Pharmacy.

Briefly list the stages of the procurement process

- i. Review selection of medicines
- ii. Determine quantities needed
- iii. Reconcile needs and finance
- iv. Choose procurement method
- v. Locate and select suppliers
- vi. Specify contract time
- vii. Receive and check medicines
- viii. Make payment
- ix. Storage and sales of medicines
- x. Collect consumption information

(10 x 2 marks = 20 marks)

#### Question 4.

4.1 When the prescription is received for an antibiotic medication, describe the essential details of patient counselling to improve drugs therapy as a community pharmacist.

- Educate about antibiotics (indication, side effect, contraindication)
- Identifies Correct interaction and medication convenient time
- Advise them to complete full course to achieve effectiveness without suddenly stop
- Educate to follow the correct storage.

(2.5 marks for each = 10 marks)

4.2 As a community pharmacist, describe how to ensure patient compliance for medications.

1. Practise good communication
2. Active listening to effectively share information
3. Read prescription two times and clearly identify medicaments with their strength, dosage form and dose
4. Clearly and correctly labelled the products with strength, name of the drug, etc
5. Clearly give instruction orally and writing on a label and direction carefully
6. Get feedback from patient using good communication practise

**(any 5;2 marks each)**

4.3 Describe briefly the following terms (20 marks)

a. Antibody

An immunoglobulin manufactured (made) by the body, to neutralize an antigen  
**(7 marks)**

b. Antigen

A foreign substance introduced into a person's body, that can generate and appropriate antibody  
**(7 marks)**

c. Immunization

A procedure to introduce an antigen to a person's blood vascular system or skin to generate antibodies against a disease  
**(6 marks)**

### Question 5.

5.1 Write the five (5) chemical groups of crude drugs, giving one examples for each group

<b>Chemical groups Of crude drugs</b>	<b>Example</b>
* Alkoloids	- Datura, Vinca, lobelia opium, Belladonna
* glycosides	- Cascara, Senna, Digitalis
*Tannins	- Catechu, Myrobalan, Ashoka
*Volatile Oil <i>Terpenoid</i>	- Clove, Eucalyptus, Cinnamon
*Lipid	- Castro oil, Beeswax, Aracfusoil
*Carbohydrate and Derivatives – Acacia, Agar, Honey, Linseed, tragacanth,	starch
*Resin	- Colophony, Bonjoin
* Vitamins and hormones	- Yeast, shark liver, oil, cod-liver oil
*Proteins and enzyme	- Gelatin, Papain

**(Any 5 acceptable)**

5.2 Write the five (5) pharmaceutical uses of gum acacia

- i. Emulsifying agent (Emulsifier)
- ii. Stabilizing agent
- iii. Suspending agent
- iv. Tablet binder
- v. Viscosity-increasing agent

**(All 5 are correct 2 marks for each)**

5.3 Complete the table below by giving the **action**, **biological source** and **one dosage form** each for the five given medicinal substance.

Medicinal substances	Action (2 marks)	Biological source (1 mark)	Dosage form (1 mark)
Atropine	Anticholinergic	Atropa belladonna	Atropine tablets/injection (iv) Eye drops
Codeine	Analgesic/ Antitussive	Papaver somniferam	Codeine Phosphate linctus tablets (combine tablets with paracetamol)
Menthol	Rubefacient	Mentha species	Menthol and Eucalyptus oil inhalation, menthol lozenges
Ephedrine	Sympathomimetic/ anti-histamine	Ephedra sinica	Ephedrine tablets Ephedrine nasal drops
Vincristine	Anti tumor Anti-leukemic gent	Catharanthus roseus	Vincristine injection

Each drug (1 – 5) correctly completed 4 marks (as indicated above)

