

① Who is known as Father of Pharmacy ?

Professor William Procter is known as Father of Pharmacy

② Who is known as Father of Pharmacy or Father of Pharmacopoeia in India.

Professor Mahadeva Lal Schröff is known as father of pharmacy profession in India.

③ Enlist the different pharmacopoeia and also define Pharmacopoeia.

Pharmacopoeia is derived from two greek words

- Pharmakon means 'drug'
- Poieia means 'to make'

Pharmacopoeia is a legal and official book of standard for drugs issued by recognized authorities appointed by 'Government of each country'

Pharmacopoeia of different countries :

- Indian Pharmacopoeia
- British Pharmacopoeia
- United States Pharmacopoeia.
- European Pharmacopoeia
- French Pharmacopoeia

④ In which Year does the most recent edition of Indian Pharmacopoeia has published and how many volume does this edition contains.

The latest edition of Indian Pharmacopoeia has been published in 2022 and this edition contains 4 volumes.

⑤ Enlist different editions of Indian Pharmacopoeia along with year and volume.

• 1 st Edition	1955	2	
• 2 nd Edition	1966	3	
• 3 rd Edition	1985	2	
• 4 th Edition	1996	3	
• 5 th Edition	2007	3	
• 6 th Edition	2010	3	
• 7 th Edition	2014	4	
• 8 th Edition	2018	4	
• 9 th Edition	2022	4	

⑥ Define Monograph.

A monograph is a collection of detailed information on a particular drug its dosage form & method of analysis :

A monograph contains :

- Chemical Name
- Formula
- Solubility
- Identification
- pH
- Assay
- Loss on Drying
- Dose

⑦ What is Compendia or Drug compendia.

Compendia is simply defined as compilation of Pharmacopoeia and Formulary.

Drug compendia classified into two types :

- Official Compendia
- Unofficial Compendia

⑧ Define Excipients.

Excipients are the inert pharmaceutical ingredients that are used in drug formulation. It doesn't increase or decrease the action of active pharmaceutical ingredient (API)

example : Preservatives , Flavouring Agents, Sweetening Agents etc.

⑨ Define Prescription

A prescription is a written order from a registered medical practitioner to pharmacist in order to compound and dispense specific medicament for patient.

⑩ Define Posology

Posology is derived from two greek words

- Posos means 'How much'
- Logos means 'Science'

Posology is a branch of medical science that deals with dose or quantity of drugs which can be administered by the patient to get desired pharmacological action.

⑪ Define Synergism & Antagonism

Synergism : When two or more drugs administered together and their total pharmacological action is increased then this phenomenon is called synergism.

Antagonism : When two or more drug administered together and their pharmacological action (total) is decreased then this phenomenon is called antagonism.

(12) Define Dusting Powder.

Dusting Powder are very fine and free flowing powder meant for application to unbroken skin. These powders work as protectives and having antiseptic, antifungal properties.

A good dusting powder must have :

- Ease of flow
- Non-Irritability
- Good absorption & adsorption
- Good stability

(13) How Co-Solvents improves Solubility.

When the drug (Active Pharmaceutical Ingredient) is immiscible in the solvent, then we use co-solvents.

Co-solvents are generally the solution of ethanol, glycerol in which both drugs and our main solvent is highly soluble, hence by adding co-solvents, we can improve solubility.

(14) Define Tablet.

Tablet can be defined as compressed unit solid dosage form containing medicaments with or without excipients.

(15) Define Capsule.

Capsules can be defined as solid dosage form in which drug substance is enclosed in gelatin shells.

(16) Define Syrup and differentiate between Simple Syrup IP and Simple Syrup USP

Syrups are sweet viscous concentrated aqueous solution of Sucrose in purified water.

- Concentration of Syrup IP : 66.7% w/w (Sucrose in water)
- Concentration of Syrup USP : 85% w/v (Sucrose in water)

(17) Define Elixer.

- Elixers are defined as clear, aromatic, sweetened, hydroalcoholic liquids intended for oral use.
- They are generally less sweet & less viscous than syrup
- They mainly contains alcohol.

(18) Define Liniments.

- Liniments are liquid or semi-solid preparations meant for external application (skin)
- They are applied to the skin with friction & rubbing.
- They should not be applied to broken skin.

(19) Define Lotions.

- Lotions are liquid preparations meant for external application without friction or rubbing.
- They are generally applied with help of some absorbant materials such as cotton etc.
- They should not be applied to broken skin, it may cause irritation.

(20) Define Effervescent and Efflorescent Powders.

Effervescent Powders : Effervescent powder is generally a combination of citric acid, tartaric acid and sodium bi carbonate. Before administration the desired quantity is dissolved in water, the acid & bicarbonate reacts together & produce CO_2 which forms effervescence.

Efflorescent Powders : Efflorescent powders are crystallized powders that contain water of hydration & when they exposed to atmosphere, they partially or completely release its water.

(21) Define Proof Spirit.

- Proof spirit is that mixture of alcohol and water which at 57°F weighs $12/13^{\text{th}}$ of an equal volume of water.
- In India 57.1 volume of ethyl alcohol is considered to be equal to 100 volumes of proof spirit

$$57.1\% \text{ v/v} = \text{100 proof}$$

$$> 57.1\% \text{ v/v} = \text{Over proof}$$

$$< 57.1\% \text{ v/v} = \text{Under proof}$$

(22) Define Geometric Dilution

Geometric dilution is the process of diluting something based on its measured size.

It is generally used while combining fine powders of unequal amounts to ensure equal distribution.

(23) Define Eutectic Mixture.

The eutectic mixture is the specific composition of two or more solid components that produces a change of phase to liquid at certain temperature.

(24) Define Humectants.

Humectants are substances that attract water from air and retain moisture or we can say these are the substances that stops something from loosing moisture.

(25) Define Surfactants

Surfactant are the chemical compounds that decreases the surface tension or interfacial tension between two liquids and make them miscible.

② Explain Fried's and Clark's Rule / formula.

- Fried's Formula

$$\frac{\text{Age (In months)}}{150} \times \text{Adult Dose} = \text{Dose for Child.}$$

- Clark's Formula

$$\frac{\text{Weight (lbs)}}{150} \times \text{Adult Dose} = \text{Dose for Child}$$

③ Explain HLB System and Bencroft rule.

HLB System

- The HLB system stands for 'Hydrophilic Lipophilic Balance'
- It is the measure of degree of hydrophilicity or Lipophilicity of a surfactant.

Bencroft Rule

- According to bencroft rule the type of emulsion is depend on the nature of emulsifying agents (emulsifier)
- The phase in which emulsifier is more soluble constitutes the continuous phase

④ What do you understand by term 'Self Preserving'. Give example of two self preserving dosage form.

Those drugs or chemical compounds which protects or preserves themself from bacterial growth are called Self Preserving, they do not need any preservatives.

Example :

- ① Syrup
- ② Elixer

(29) Give example of antimicrobial preservative and antioxidants.

Preservatives : Benzoic Acid, EDTA

Antioxidants : Vitamin C, Zinc

(30) Define Sedimentation Volume.

- Sedimentation volume is the ratio of ultimate volume of sediment to the original volume of sediment.
- It is denoted by 'F'

$$F = \frac{V_u}{V_0}$$

(31) Define Emulsion

An Emulsion is a biphasic liquid dosage form in which two immiscible liquids are mixed together with the help of an Emulsifying Agent.

(32) Define Emulsifying Agent with example.

Emulsifying agents are those chemical compounds which reduces interfacial tension between two immiscible liquids & make them miscible to form a stable emulsion.

They are also known as Emulsifiers.

Example : Gum Arabic, Starch, Gelatin etc.

(33) Define Suspension

Suspension is a biphasic liquid dosage form in which finely divided solid particles dispersed into the liquid

(34) Define Suspending Agents.

They are added in the suspension to disperse solid particles in continuous liquid phase. They helps to make suspension flocculated.

(35) Define Suppositories.

Suppositories are semi-solid dosage forms of various shapes and sizes meant for insertion into body cavities like rectum, vagina, nose, ear except mouth.

(36) Define Pessaries.

- Pessaries are simply vaginal suppositories that are meant for insertion into vagina.
- They are mainly rod or cone shaped and generally used to treat vaginal infection.

(37) What is Isotonic solution.

- Isotonic solution are those whose concentration or osmotic pressure is equal to 0.9% w/v of NaCl.
- They are used for insertion into body fluids.

(38) Define Suppository bases with examples.

Suppository bases are the excipients that are used in the manufacturing of suppositories.

example : Theobroma Oil (Cocoa Butter), vegetable oils.

(39) Define Displacement Value.

The quantity of drug that displaces one part of suppository base is known as 'Displacement Value'.

(40) Define Physical Incompatibility.

When two or more than two substances are combined together and a physical change takes place which results in the formation of an unacceptable product, then this phenomenon is called Physical Incompatibility.

(41) Define Chemical Incompatability.

Chemical Incompatability is the result of change in chemical properties of two or more ingredients due to chemical reaction occurs between them.

(42) Define Therapeutic Incompatability.

Therapeutic Incompatability may be the result of prescribing certain drugs to the patient with the intention to produce a specific degree of action but the nature or intensity of action produced is different from that intended by prescriber.

(43) Define Semi - Solid dosage form along with classification.

Semi - solid dosage forms are topical preparations used for therapeutic, protectives or cosmetic function.

Classification.

- Cream
- Ointment
- Gel
- Paste

(44) Differentiate Cream & Ointment

<u>Cream</u>	<u>Ointments</u>
<ul style="list-style-type: none">• Water base semi - solid preparations.• Non - Greasy• Thick preparation• Rapidly Absorbed• Easily washable• Rapid Action	<ul style="list-style-type: none">• Oil based semi - solid preparations.• Greasy• Soft preparation.• Slowly Absorbed.• Not easily washable.• Slow Action.