

CHAPTER 5: PHARMACEUTICAL DOSAGE FORMS

Syllabus: Introduction and classification of various pharmaceutical dosage forms. Critical study of the following:- Infusions, tinctures, extracts, aromatic waters, spirits, solutions, syrups, elixirs, mucilages, glycerites, collodions, gels, linctus, magmas.

Ques:

1. How will you make simple syrup as per IP specifications. (91) [4]
2. How will you prepare collodion? Give the use of collodion. (91) [4+2]
3. What are solution dosage forms? How will you make liquor ammonium acetate fortes? How will you test the purity of the above product?(91, 92) [4+2]
4. What are pharmaceutical formulations?(91) [4]
5. Give a systematic classification of dosage forms.(91,95) [4]
6. Give the methods of preparation of aromatic waters.(91) [4]
7. What is the difference between:
 - a) Elixir & Syrup(92,93,94) [4]
 - b) Solution & aromatic waters (92,94,95) [4]
 - c) Tinctures & extracts (92) [4]
 - d) Tinctures & Spirits (93,94,95) [4]
 - e) Sol & Gel (93) [4]
 - f) Lotion & Liniment (94,95) [4]
 - g) Dose & Dosageforms (94) [4]
 - h) Linctuses & Glycerites (94) [2]
 - i) Elixir & Linctus (94) [2]
 - j) Mixture & Lotions (94) [2]
9. Discuss the preparation and uses:
 - a) Lysol (92) [4]
 - b) Flexible collodion (92) [4]
 - c) Milk of magnesia (92) [4]
 - d) Syrup of Ferrous Iodide (92) [4]
10. What is the principle, method and equipment used in aromatic ammonia spirit. (92) [4]
11. What is the difference between dose and dosage (93,94) [4]
12. Name and define different parenteral liquid dosage forms. (93,94) [12]
13. How does the method of preparation vary for:
 - a) Camphor water & Dill water (93)
 - b) Simple syrup & Invert syrup (93)
 - c) Syrup (96) [8]
 - d) Tinctures, Spirits, Gels, Elixir. (96) [4+4]
14. What are collodions? what are the constituents of such type of preparations? Differentiate between medicated and nonmedicated collodions. (99) [6]
15. Define creams. What are the type of creams available? Give the advantages and disadvantages. (99) [6]
16. what do you mean by draughts? What are the essential characteristics of such type of preparations? Give your answer with suitable illustrations. (91) [4]

DEFINITION OF DRUG

A drug may be defined as an agent, intended for use in the diagnosis, mitigation, treatment, cure or prevention of disease in man or in animals.

DOSAGE FORM

Drugs are rarely administered in their original pure state. They are converted into suitable formulation which is called **dosage forms**. Every dosage form is a combination of the drug and other non-drug components.

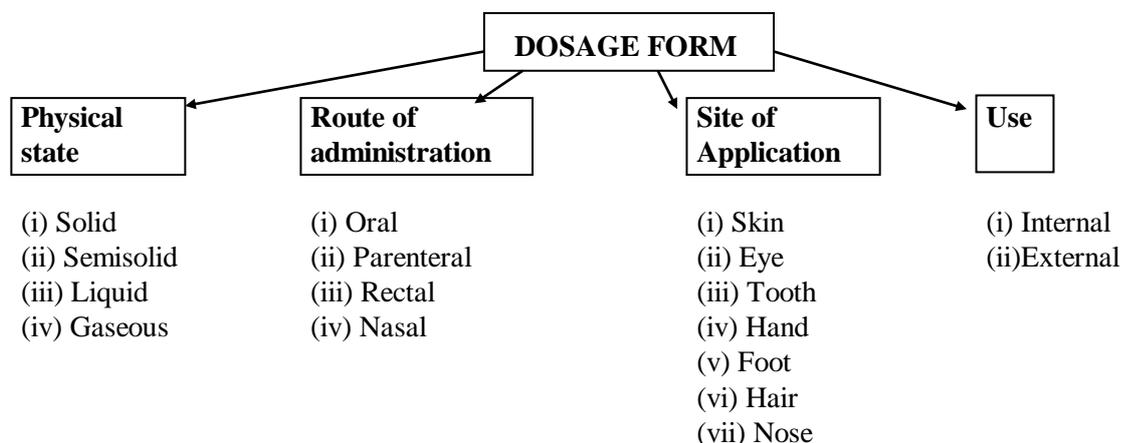
The non-drug components are known as “**additives**”. The additives are used to give a particular shape to the formulation, to increase its stability and also to increase its palatability as well as to give more elegance to the preparation.

Ques. Why the drug should be converted into dosage forms ?

Ans. Transformation of drug into different dosage forms is done for the following reasons:

1. To protect the drug from oxidation (e.g. Vitamin C, Ferrous sulfate), hydrolysis (aspirin) and reduction. e.g. coated tablets, sealed ampoules.
2. To protect the drug from destructive effect of gastric juice (HCl) of the stomach after oral administration e.g. enteric coated tablets.
3. To provide a safe and convenient delivery of accurate dosage.
4. To conceal the bitter (e.g. chloramphenicol), salty or obnoxious taste or odour of a drug substance e.g. capsules, coated tablets and flavoured syrups etc.
5. To provide for the optimum drug action through inhalation therapy. e.g. inhalation aerosols and inhalants.
6. To provide for the drug into one of the body-cavities e.g. rectal suppositories.
7. To provide for the maximum drug action from topical administration sites. e.g. creams, ointments, ophthalmic preparations and E.N>T. (ear, nose and throat) preparation.
8. To provide sustained release action through controlled release mechanism. e.g. sustained release tablets, capsules and suspensions.
9. To provide liquid dosage form of the drugs soluble in a suitable vehicle e.g. solutions.

CLASSIFICATION OF DOSAGE FORMS



Route of administration	Dosage forms
Oral	Powders, tablets, capsules, solutions, emulsions, syrups, elixirs, magmas, gels, cachets, pills.
Parenteral	Solutions, suspensions, emulsions.
Transdermal	Ointments, creams, powders, pastes, lotions, plaster
Rectal	Suppositories, tablets, ointments, creams, douches, foams.
Urethral	suppositories
Sublingual	Lozenges, tablets
Intranasal	Solutions, sprays, inhalations.
Conjunctival	Ointments
Intra-ocular	Solutions
Intra-respiratory	Aerosols

Classification according to physical state:

