

INSTITUTE OF TEACHING AND RESEARCH IN AYURVEDA
[INSTITUTE OF NATIONAL IMPORTANCE]

MINISTRY OF AYUSH, GOVERNMENT OF INDIA

B. PHARM. (AYU.) IV YEAR

PHARMACEUTICAL TRCHNOLOGY OF AYURVEDIC DRUGS-II

Question Bank

S.N. QUESTIONS MARKS

SECTION A

1. PREFORMULATION

What is preformulation ? Explain in brief about its scope and importance in field of Ayurvedic pharmacy. 10

Explain Why preformulation study is important in developing a safe , effective & stable dosage form ? 10

Describe advantages of physical and physic-chemical factors used in the preformulation ? 10

Preformulation is important in pharmaceutical field. Explain why ? What is crystallinity, polymorphism and molecular optimisation in preformulation studies? 10

Write short notes on – prtition coefficient and solubility 5

Powder flow characteristics 5

Discuss crystallinity and polymorphism in detail. 5

Bulk characteristics in Preformulation 5

Polymorphism and hygrosopicity 5

Hygrosopicity. 2

partition coefficient	2
Eutectic mixtures	2

2. STABILITY STUDY

Why stability study of Ayurvedic formulation is necessary ? Explain with examples.	10
Discuss ICH guidelines for stability study of pharmaceutical products ?	10
Give detail account on determination of shelf life of drug and product ?	10
Explain the principles and methods of accelerated stability studies ?	10
Define with examples, Preservatives, Antioxidants and Disinfectants. Discuss the mechanisms with examples of different types of preservatives used in Pharmaceutical preparations.	10
Write short note on – stability study protocol	5
Overages of product	5
Benefits of stability studies	2
Shelf life	2
Half life	2
How many types of stability studies carried out for pharmaceuticals ?	2

3. PILOT PLANT SCAL UP

Explain in details pilot plant scale up techniques ?	10
Enumerate general considerations for pilot plant scale up.	10
Write short note on - GMP	5
Preparation of master manufacturing procedure	5

Master formula 5

Batch manufacturing procedures 2

S.O.P. 2

Documentation 2

4. INCOMPATIBILITY

Give a detail account on incompatibility & their types ? 10

Explain methods of solving physical and chemical incompatibilities ? 10

Organic incompatibilities of purines, alkaloids , glycosides, carbohydrate , amino acids, Surface active agents etc. 10

Types of incompatibilities 5

Chemical incompatibilities. 2

Give two examples of chemical incompatibilities. 2

Change of color as a result of incompatibilities. 2

Mixture of campher and menthol is which type of incompatibility? 2

5. PILLS/PASTILLES/LOZENGES

Define pills , pastilles & lozenges. Discuss their formulation and packaging ? 10

Discuss coating techniques used for pills , pastilles and lozenges ? 10

Write short notes on- pills 5

pastilles 5

lozenges 5

Packaging & storage conditions for pills & lozenges. 2

6. TABLET

Define tablets ,discuss their types ,ideal requirements & classification in detail ? 10

Explain in detail about coating of tablets and coating defects ? 10

Explain formulation of tablet in detail. 10

Describe various additives used in tablet formulation ? 10

Write short note on - dry and wet granulation methods 5

Sugar coating & film coating 5

Advantages and dis advantages of tablets 5

Evaluation parameters of tablets 5

additives used in tablet formulation 5

Give the difference between sugar coating and film coating for tablets 5

diluents 2

glidants 2

Disintegrating agents 2

lubricants 2

capping 2

lamination	2
Mottling effect	2
Name of hardness testers	2
Why friability test is required for tablets	2
Name of any two coating material for tablet coating	2

SECTION B

7. PACKAGING MATERIALS

Discuss ideal requirements of packaging for Ayurvedic formulations.	10
Discuss various type of packaging materials used for liquids , solids , semisolids dosage forms ?	10
Explain evaluation parameters for containers ?	10
Write short note on – Child resistance containers	5
Ideal requirements for glass , plastics & rubbers	5
What is the role of amber coloured glass ?	2
Child resistant containers	2

8. PARENTERALS

Which are the factors to be consider for the formulation of parentral dosage form? Explain any two factor in detail.	10
What do understand by the term isotonic ? discuss the important of it in the Parentral dosage form ?	10
Discuss various additives required for formulation of parentral dosage forms ?	10
How the Parentral products are evaluated? Explain.	10

Discuss the essential requirements of Parenteral preparations. What are the common routes for injection of fluids in the body? Write short note on -	10
Layout for production of parenteral product	5
Vehicle for parenteral	5
What do you understand by sterile water for injection ? Describe its method of preparation and quality control parameters.	5
Discuss the importance of vehicles in injectable formulation.	5
Different sterilization method for Parenteral preparations	5
What is pyrogen ?	2
9. NOVEL DRUG DELIVERY SYSTEM & SUSTAINED RELEASE DRUG DELIVERY SYSTEM	
Explain design and concept of NDDS.	10
Explain objectives, advantages and limitations of sustained release dosage forms.	10
Explain objectives, advantages and limitations of controlled drug delivery system..	
Classify controlled drug delivery system and their physico-chemical and physiological factors considered critical in designing of controlled drug delivery system ?	10
Explain the mechanism of membrane permeation controlled systems,their manufacturing & describe the basic components of TDDS ?	10
What do you mean by NDDS? Explain in brief about the targeted delivery system to, (a) Stomach. (b) Small intestine. (c) Colon. (d) Lymphatic system.	10
Write short note on – osmotic pumps & their applications	5

Various approaches for colon targeting	5
Mucoadhesives drug delivery system	5
Nanoparticles	5
floating tablets	5
Osmatic drug delivery system.	5
Colon targeted drug delivery systems.	5
Describe the Osmotic tablets with their formulations and mechanisms of actions.	5
Define nano particles.	2
Define controlled drug delivery system	2
Define sustained drug delivery system	2
Define targated drug delivery system	2
10. CAPSULES	
What is the capsules ? discuss their merits and demerits ?	10
Discuss general formulation consideration of capsules & their evaluation ?	10
Discuss in brief about evaluation of capsules.	10
Write short note on – soft gelatin capsules	5
hard gelatin capsules	5
Filling and storage of capsules	5
11. MICRO-ENCAPSULATION	

Define microencapsulation Enumerate the various techniques for preparation of microencapsulation and explain about any two in detail.	10
What is Microencapsulation ? Enlist methods for its manufacturing, discuss any one method in detail.	10
What is Microencapsulation ? Discuss their methods of preparation ?	10
Discuss the applications of microencapsulation Process ?	10
Name the commonly used materials for Microencapsulation and describe the Air suspension method for Microencapsulation	10
Write short note on – Air suspension method	5
Advantages of microencapsulation	5
What do mean by Microencapsulation ? Write advantages and disadvantages of Microencapsulation.	5
What are the advantages and disadvantages of microencapsulation.	5
Name the commonly used materials for Microencapsulation and describe the Air suspension method for Microencapsulation.	5
Give two disadvantages of micro encapsulation.	2
Define core material and coating material.	2