Printed Pages:01 **Sub Code: BP-502T**

Paper Id: 231421 **Roll No.** | | | | | | | | | | |

B PHARM
(SEM V) THEORY EXAMINATION 2022-23
INDUSTRIAL PHARMACY-I

Time: 3 Hours *Total Marks: 75*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a. Distinguish drugs on the basis of BCS classification.

b. Classify tablets based on route of administration.

c. Enlist various steps involved in pelletization process.

d. Determine the base adsorption and minim per gram factor in capsules.

e. Classify propellants used in aerosols.

f. Explain significance of isotonicity in ophthalmic preparations.

g. Enlist the methods used for preparing soft gelatin capsule.

h. Classify all types of glass used in pharmaceutical packaging.

i. Define preformulation studies.

j. Define SPF.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a. Analyze the processing problems encountered during manufacturing of coated tablets and suggest remedies to resolve the same.

b. Explain the preparation of dry powder by lyophilisation. Evaluate quality control tests for parenterals.

c. Describe the basic components of a valve and aerosol container and broadly cite their importance.

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a. Estimate various quality control tests for aerosols.

b. Illustrate the application of preformulation studies in development of new chemical compound.

c. Depict the manufacturing of hard gelatin capsules.

d. Illustrate the production facilities and various control for manufacturing of parenteral dosage forms.

e. Predict the legal and official requirements for packaging materials.

f. Investigate the processing problem encountered during liquid preparation.

g. Discuss different granulation method.

PAPER ID-410826

Roll No: | | | | | | | | | | | | |

B PHARM
(SEM V) THEORY EXAMINATION 2021-22
INDUSTRIAL PHARMACY-1

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	List various components of pharmaceutical aerosol.
b.	Differentiate between dextrorotatory and levorotatory.
c.	What are basic steps of process of dry granulation?
d.	What are the glidants?
e.	What is deflocculated system?
f.	What are different sources of pyrogen contamination?
g.	What are the factors affecting the drug absorption from ophthalmic route?
h.	Enlist the optimizable properties of powder layering technique?
i.	Why gelatin is the most preferred shell formulating material for capsules?
j.	Which type of glass consume the least volume of acid in Powdered Glass Test?

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Describe various materials used for packaging of pharmaceutical products with regards to their benefits, limitations and remedy to overcome such limitations.
b.	Illustrate the rotary die process with the help of flow chart, diagram, and underlying principle.
c.	Explain the in-process and finished product quality control tests for tablet dosage form based on pharmacopoeia standards and specifications.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Explain various processing problems of uncoated tablet and their remedies.
b.	Discuss the evaluation of ophthalmic preparation as per pharmacopoeia standards and specifications.
c.	Illustrate the process to prepare lyophilized parenteral products with the help of well labelled diagram.
d.	Explain equipment for manufacture of pellets with well labelled diagram.
e.	Discuss the application of pre-formulation considerations in the development of tablet dosage form with appropriate industry related case study.
f.	Discuss briefly about formulation of cold cream.
g.	Discuss the in-process and finished product quality control tests for pharmaceutical aerosols based on pharmacopeia standards and specifications.

PAPER ID-310394

Roll No:

Subject Code: BP502T

B PHARM
(SEM-V) THEORY EXAMINATION 2020-21
INDUSTRIAL PHARMACY-I

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	What do you mean by preformulation studies?
b.	How are drugs classified as per BCS?
c.	What is the role of binders in manufacturing tablets?
d.	Define super-disintegrants with examples.
e.	What are the various sizes of capsules available for human use?
f.	What do you mean by Bloom Strength?
g.	Explain significance of isotonicity in parenteral formulations.
h.	Define aseptic processing.
i.	What is the function of propellants in aerosol system?
j.	Define tamper evident packaging.

SECTION B

2. Attempt any *two*parts of the following: **2 x 10 = 20**

a.	Discuss in detail about various tests which are generally done to maintain the quality control of tablets.
b.	What are the advantages of capsules as dosage form? Discuss in detail about various mechanisms of filling powders in hard gelatin capsules.
c.	Classify different types of Parenteral products. How are parenteral products evaluated for quality control?

SECTION C

3. Attempt any *five*parts of the following: **7 x 5 = 35**

a.	What is the significance of pka and pH in preformulation studies?
b.	Discuss the principle and working of Rotary tablet press in detail.
c.	How is coating of tablets beneficial? Discuss working of a coating pan.
d.	Elaborate the process of manufacturing of hard gelatin capsule shell.
e.	How are dry powders for injection prepared by Lyophilization?
f.	What are the various components of Aerosol product? Explain significance of each.
g.	Discuss various quality control tests of Glass as a packaging material.

Sub Code:BP502T

Paper Id: 150717 Roll No:

B. PHARM
(SEM-V) THEORY EXAMINATION 2019-20
INDUSTRIAL PHARMACY I

Time: 3 Hours ***Total Marks: 75***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Name the type of drug as per BCS classification.
b.	What are the objectives for study of physiochemical characterization of drug substances?
c.	What is crystal bridging during wet granulation?
d.	What are various non Pharmacopoeial test conducted for evaluation of tablets?
e.	Write in brief about IPQC test for capsule.
f.	Draw the labeled diagram of slugging machine.
g.	Amorphous or crystalline drug which will give more stable dosage form and why?
h.	What are WFI and sterile WFI, how they are different?
i.	What is vapour tap and how it is significant?
j.	Name all types of glass used in pharmaceutical packaging.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	What are various defects in tablets and how they may be rectified, explain in detail?
b.	How hard gelatin capsules shells are filled. Discuss about equipments used and principle for hard gelatin capsule filling.
c.	What are selection criteria for containers and closures for parenteral how you will do cleaning of containers and closures?

SECTION C

3. Attempt any *five* parts of the following: **5 x 7 = 35**

a.	What are various aims and objectives for preformulation, and how to proceed for preformulation?
b.	Write note on physics of tablet.
c.	How to evaluate suspension explain?
d.	Write various advantages and disadvantages for parenteral products.
e.	How particle size of drug may affect development of stable dosage form?
f.	How will you formulate tooth paste, explain and give preparation method for the same.
g.	What are various parts of aerosol valve explain with diagram?

PAPER ID-410680

Subject Code: BP502T

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM V) THEORY EXAMINATION 2023-24

INDUSTRIAL PHARMACY I THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Differentiate between crystal and amorphous.
b.	Define racemization.
c.	Enlist excipients of tablet formulations.
d.	Give a flowchart of palletization process.
e.	Give examples of vehicles of parenteral products.
f.	Define eye lotion with example.
g.	Write the ingredients of lipsticks.
h.	Give principle and examples of sunscreens.
i.	Enlist materials used for packaging.
j.	Define isotonicity.

SECTION B

2. Attempt any *two* parts of the following: **2 x 10 = 20**

a.	Describe wet granulation method of tablet formulation.
b.	Write the method of preparation of soft gelatin capsule. How soft gelatin capsules are evaluated?
c.	Classify propellants and write the properties of container and valves of aerosols.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Describe hydrolysis and oxidation in reference to the stability of pharmaceutical formulations.
b.	Describe various quality control parameters of tablet dosage forms.
c.	Write the formulation and evaluation considerations of syrups.
d.	Give the method of production of hard gelatin capsule shells.
e.	Give the method of preparation and evaluation parameters of eye drops.
f.	Write the principle and method of preparation of vanishing creams.
g.	Describe the stability aspects of packaging materials.

PAPER ID-311015

Subject Code: BP502T

Roll No: | | | | | | | | | | | | | |

BPHARM

(SEM V) THEORY EXAMINATION 2023-24

INDUSTRIAL PHARMACY I– THEORY

TIME: 3 HRS **M.MARKS: 75**

Note: 1. Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. **10 x 2 = 20**

a.	Write down the significance of carrying out pre-formulation studies.
b.	Define the role of pKa values in predicting the solubility profile of a drug.
c.	Classify tablets.
d.	State the composition of the enteric coating.
e.	Differentiate between hard and soft gelatin capsules.
f.	How the sizes of capsules are expressed?
g.	Mention the limitations of parenteral products.
h.	Define lyophilization.
i.	State the composition parameters of sunscreens.
j.	Define propellants.

SECTION B

2. Attempt any *two parts* of the following: **2 x 10 = 20**

a.	Describe the various parameters of the in-process and finished product quality control tests for coated tablets.
b.	State and explain the formulation approaches for ophthalmic preparations.
c.	Explain the roles of various factors influencing the choice of pharmaceutical containers.

SECTION C

3. Attempt any *five* parts of the following: **7 x 5 = 35**

a.	Describe the chemical properties of the drug substances to be considered in the pre-formulation studies.
b.	Explain formulation considerations of syrups and emulsions.
c.	Describe the parameters of in-process and final product quality control tests for capsules.
d.	Describe the packaging techniques, storage conditions and stability testing parameters for soft gelatin capsules.
e.	Elaborate the importance of adjusting pH and isotonicity for parenteral products.
f.	Explain the formulation requirements and process of palletization for pharmaceutical pellets.
g.	Write a brief note the various evaluation parameters for aerosols.