

29/11/21 m

Roll Number ----- (Total Number of Questions 13) (Total number of Printed Pages 01)

Programme	B. Pharmacy
Semester	5 th
Subject	Industrial Pharmacy-I
Subject Code	BP502T
Paper ID	76787
Time	3Hours
Maximum Marks	75

Instructions to Candidates: No supplementary/continuation sheet will be issued to the candidates. Answer the questions precisely.
*Section A consists of Ten parts of 2 marks each (Objective Type); Attempt ALL.
**Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any TWO.
*** Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any SEVEN.

Section A (10 X 2 = 20)

1. Give very short answers to the followings (2 marks each):

i.	What are the advantages of tablet over another dosage form?
ii.	What is Isotonicity? Give its significance in Parenteral preparations.
iii.	Define pH and its significance.
iv.	Write the method of preparation for shampoo.
v.	Define Propellants with example.
vi.	Define Elixers with example.
vii.	What are the essential characteristics of eye drops?
viii.	Give the difference between soft gelatin and hard gelatin capsule.
ix.	Define m/g factor.
x.	What is BCS classification System?

Section B (2 X 10 = 20)

2.	Mention the various tablet defects, their causes and remedies.
3.	Enumerate IP method for testing of sterility in Parenterals. Discuss the general procedure for manufacturing of Parenterals.
4.	Define Preformulation studies. Discuss various physicochemical properties which are determined prior to formulation.

Section C (7 X 5 = 35)

5.	Write a note on Pelletization process.
6.	Write the quality control test for glass containers.
7.	Describe various official and non-official test conducted on tablet.
8.	Write a note on manufacturing steps of hard gelatin capsule.
9.	Discuss the method of any one official liquid oral.
10.	How lipsticks are evaluated?
11.	Explain the formulation consideration with respect to Ophthalmics.
12.	Discuss the significance of Partition Coefficient in Preformulation.
13.	What is the use of plastic for packaging of drug products?

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8/7/22 M

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Section A

(10 X 2 = 20)

1. Give very short answers to the followings (2 marks each):

i.	Mention the composition of glass-I container.
ii.	Give a brief account of adjuvants used in the preparation of eye drops.
iii.	Name the new directly compressible diluents.
iv.	Write short note on BCS Biowaiver.
v.	What is bloom strength?
vi.	Define degree of flocculation.
vii.	Mention the causes of blooming in tablets.
viii.	What is medicated shampoo? Explain.
ix.	Define abrasives with two examples.
x.	What is the role of valve in an aerosol?

Section B

(2 X 10 = 20)

2.	Describe the manufacturing of soft gelatin capsules by rotary die process with a neat and labeled diagram.
3.	Discuss the evaluation of glass containers according to USP.
4.	Write in detail about the construction of aseptic area for the production of parenteral products.

Section C

(7 X 5 = 35)

5.	Write a short note on pelletization by extrusion and spheronization.
6.	Describe the importance of partition co-efficient in the drug design with suitable examples.
7.	Define tablet coating, write the types of coating and explain the film coating composition.
8.	Discuss the defects in film coating process.
9.	What are base adsorption and minim per gram factor with its significant?
10.	Describe the structure and function of skin.
11.	Write a note on quality control of ophthalmic preparation.
12.	Discuss and differentiate the pressure filling and cold filling of aerosols.
13.	Emphasize on different stages involved in sugar coating of a compressed tablets.

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Section- A (10X2=20)

1.	Give very short answers to the followings:
i.	Define pH and its significance.
ii.	Define abrasives with two examples.
iii.	Name any four preservatives used in ophthalmic preparations.
iv.	Define capping and lamination defects.
v.	Enlist Quality control test of lipsticks.
vi.	Define degree of flocculation.
vii.	Define minim/gram factor.
viii.	Define Blooming and Orange peel Defect.
ix.	Name the new directly compressible diluents.
x.	Name the factors influencing choice of container.

Section- B (2X10=20)

2.	Define tablet. Discuss in-process evaluation parameters of tablet.
3.	a) What are the essential requirements for parenteral products? b) Enumerate quality control test of parenteral products. Discuss any two.
4.	Describe the manufacturing of soft gelatin capsules by rotary die process with a neat and labelled diagram.

Section- C (7X5=35)

5.	Define polymorphism. Discuss its significance in preformulation.
6.	How lipsticks are evaluated?
7.	Define packaging. Discuss stability aspects of material used in packaging.
8.	Discuss the method of preparation of any liquid orals.
9.	Enlist various manufacturing tablet defects. Discuss any two with cause and remedies.
10.	Write the formulation and method of preparation of shampoo.
11.	Describe the importance of partition co-efficient in the drug design with suitable examples.
12.	How can you evaluate the quality control parameters of aerosols?
13.	Write a short note on pelletization by extrusion and spheronization.

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Section- A

(10 X 2 = 20)

1.	Give very short answers to the followings-
i.	What is BCS Classification of drugs?
ii.	Define Partition Coefficient.
iii.	Differentiate between pH and pKa.
iv.	Write a short note on excipients used in solid dosage forms.
v.	Difference between vanishing and cold cream.
vi.	What are Propellants?
vii.	Define Isotonicity and give its significance.
viii.	What is the main objective for preformulation studies?
ix.	Difference between SVP and LVP.
x.	Define Recemization.

Section- B

(2 X 10 = 20)

2.	Explain method of coating and defects involved in tablet coating.
3.	Describe quality control tests of hard gelatin capsules.
4.	Explain production process in parenteral products.

Section- C

(7 X 5 = 35)

5.	Discuss the factors that influence the choice of containers in pharmaceuticals.
6.	Discuss the evaluation of aerosols.
7.	Describe pelletization process.
8.	How lipsticks are formulated?
9.	Give the method of preparation of shampoos and sunscreen lotion.
10.	Give short note on stability aspects of packaging materials.
11.	Explain preparation and evaluation of eye lotions.
12.	Explain the formulation of liquid orals with examples.
13.	Describe method of preparation of emulsion.

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(Evening)

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Section A

(10 X 2 = 20)

1.	Give very short answers to the following:
i.	Give the significance of the dissociation constant.
ii.	What do you understand by the term orange peel effect?
iii.	Give the classification of tablet tooling.
iv.	Write the method of preparation of gelatin type A.
v.	Enlist the features of thixotropic material.
vi.	Define the term Die Bore.
vii.	Give examples of different types of coating materials.
viii.	Which type of quality control tests are performed on capsules?
ix.	Write down the evaluation parameters for shampoos.
x.	Elaborate official requirements for containers as a packaging material.

Section B

(2 X 10 = 20)

2.	Elaborate on the different types of physicochemical properties evaluated in pre-formulation studies.
3.	Describe the manufacturing of aerosols along with the types of aerosol systems.
4.	Write an exhaustive note on the evaluation of ophthalmic preparations.

Section C

(7 X 5 = 35)

5.	Elaborate BCS classification and its significance in pharmaceutical sciences.
6.	Explain quality control tests for tablets.
7.	Give an account of the pelletization process and its formulation requirements.
8.	Describe in detail the procedure for aseptic processing of parenteral products.
9.	Define in detail sunscreens as cosmetic formulations. Explain their types and manufacturing.
10.	Give a descriptive note on different types of materials used for packaging pharmaceutical products.
11.	Write down the procedure for filling and sealing of ampules.
12.	Mention in detail the stability testing, packaging and storage of soft gelatin capsules.
13.	Explain in detail the evaluation of liquid orals which are official in the pharmacopeia.

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(Morning)

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***Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any SEVEN.

Section- A (10 X 2 = 20)

1.	Give a very short answers to the followings
i.	What are the objectives of pre-formulation studies?
ii.	What is partition co-efficient? How does partition co-efficient effects solubility of a substance?
iii.	Define superdisintegrants with examples.
iv.	What does a double impression in terms of tablet defect signifies?
v.	What is the term physical stability in suspension?
vi.	Write the different sizes of hard gelatin capsule shells and their capacities.
vii.	Define pelletization. Mention methods of manufacturing of pellets.
viii.	Name various methods to achieve sterility in parenteral products.
ix.	Write major differences between cold cream and vanishing cream.
x.	Enlist the formulation considerations for preparation of ophthalmic products.

Section- B (2 X 10 = 20)

2.	Elaborate physical and chemical properties used to evaluate drug substances.
3.	Describe the significance of tablet coating. Enumerate types of coating and coating materials.
4.	Write a descriptive note on quality control tests for containers and closures.

Section- C (7 X 5 = 35)

5.	Define solubility. Explain the theories describing solubility concepts.
6.	Write in detail about different equipment employed for tablet coating.
7.	Mention about containers and valves used in manufacturing of aerosols.
8.	Give an exhaustive note on formulations of Lipsticks.
9.	Mention different types of materials used in manufacturing of hard gelatins shell capsules.
10.	Give in detail the processing of parenteral products.
11.	What are the formulation considerations for the manufacture of soft gelatin capsules?
12.	Describe quality control tests for in process and finished product tests for tablets.
13.	What are the major evaluations for ophthalmic products?

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20/11/24 [Morning]

201120

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Semester	5 th
Subject	Industrial Pharmacy-I
Subject Code	BP502T
Paper ID	76787
Time	3Hours
Maximum Marks	75

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**Section B consists of Three questions carrying 10 marks each (Long Answer); attempt any TWO.

***Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any SEVEN.

Section- A (10X2=20)

1.	Give very short answers to the followings:
i.	Write a short note on BCS biowaver.
ii.	Define abrasives with two examples.
iii.	Define pH and its significance.
iv.	Write the method of preparation of shampoo.
v.	Define bloom strength.
vi.	What are the essential characteristics of eye drops?
vii.	Differentiate between gelatin A and gelatin B.
viii.	What are the material of construction of dip tube and gasket in aerosols?
ix.	Give significance of tablet coating.
x.	Define polymorphism with examples.

Section- B (2X10=20)

2.	Define preformulation studies discuss various physicochemical properties which are determined prior to formulation.
3.	Detail about the construction of aseptic area for the production of parenteral products.
4.	Discuss different manufacturing defects of tablets along with causes and remedies.

Section- C (7X5=35)

5.	Discuss the evaluation of glass containers according to U.S.P.
6.	Explain pelletization process.
7.	Discuss the defects in film coating process.
8.	What are different types of aerosols systems?
9.	How lipsticks are formulated.
10.	Briefly discuss lyophilized parenteral.
11.	Discuss the manufacturing of elixirs.
12.	Discuss the significance of partition coefficient in preformulation studies.
13.	Write a note on quality control test for capsules.

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(Morning)

090625

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Subject Code	BP502T
Paper ID	76787
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Maximum Marks	75

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***Section- A** consists of ten questions, each carrying 2 marks (Very Short Answer Type); Attempt all.

****Section- B** consists of three questions, each carrying 10 marks (Long Answer Type); Attempt any two.

*****Section- C** consists of nine questions, each carrying 5 marks (Short Answer Type); Attempt any seven.

Section- A (10X2=20)

1.	Give very short answers to the followings:
~ i.	Define partition coefficient. What is its importance in drug formulation?
~ ii.	List any two objectives of preformulation studies.
~ iii.	What are binders and disintegrants? Give one example of each.
~ iv.	Mention any two common defects observed in tablet coating.
~ v.	What is base adsorption value in soft gelatin capsules?
~ vi.	What is the significance of capsule size in pharmaceutical formulation?
~ vii.	Define isotonicity. Why is it significant in injectable formulations?
~ viii.	List any two quality control tests performed on parenteral products.
~ ix.	Mention any two quality control tests applicable to packaging materials.
~ x.	Name any two materials commonly used in pharmaceutical packaging.

Section- B (2X10=20)

~ 2.	Explain the formulation, preparation, and quality control of parenteral products.
3.	What are the formulation steps, granulation methods, and compression challenges in tablet manufacturing?
~ 4.	How would you design a preformulation study for a poorly water-soluble BCS Class II oral drug?

Section- C (7X5=35)

~ 5.	Write a short note on the quality control tests conducted for capsules.
6.	How is the process of filling and finishing of hard gelatin capsules carried out?
~ 7.	Compare cold cream and vanishing cream in terms of composition and function.
8.	What are the key components and working principles of a pharmaceutical aerosol system?
9.	Which container types are used in pharmaceutical packaging, and what influences their selection?
10.	What is the Biopharmaceutics Classification System (BCS)? Give examples and state its importance in formulation development.
11.	Which equipment is used for tablet coating, and what is the basic principle involved in the process?
12.	Differentiate between eye drops and eye ointments in terms of formulation and packaging.
13.	What are the major types of chemical degradation reactions that affect drug stability?

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*** Section -C consists of Nine questions carrying 5 marks each (Short Answer); attempt any SEVEN.

Section- A (10X2=20)

1.	Give very short answers to the followings:
i.	What do you mean by preformulation studies?
ii.	Why gelatin is the most preferred shell formulating materials for capsules?
iii.	What are different sources of pyrogen contamination?
iv.	Define temper evident packaging.
v.	Which type of glass consumes the list volume of acid in powder glass test?
vi.	What is the role of valve in an aerosol?
vii.	What are basic steps of process of dry granulation?
viii.	Define degree of flocculation.
ix.	Mention the causes of blooming in tablets.
x.	What are WFI and sterilize WFI? How they are different to each other?

Section- B (2X10=20)

2.	Discuss in detail the construction of aseptic area for the production of parenteral products.
3.	What are various defects in tablets? and how they may be rectified, explain in detail.
4.	Write down the in process and final product quality control tests for capsule.

Section- C (7X5=35)

5.	Write the note on BCS classification of drugs and it's significant.
6.	Depict the manufacturing of hard gelatin capsules.
7.	Explain the evaluation of suspension.
8.	Estimate various quality control tests for aerosols.
9.	Explain in detail about polymorphism.
10.	Discuss the evaluation of glass containers according to USP.
11.	Write a short note on pelletization by extrusion and spheronization methods.
12.	How particle size of drug may affect development of stable dosage form?
13.	How will you formulate and prepare the toothpaste?

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Paper ID	76788
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*** Section C consists of Nine questions carrying 5 marks each (Short Answer); attempt any **SEVEN**.

Section A

(10 X 2 = 20)

1. Give very short answers to the followings (2 marks each):

i.	What is the significance of Bioassay?
ii.	Name class III anti-arrhythmic agents.
iii.	What is the use of Alteplase?
iv.	Define Fenofibrate. Where it is used?
v.	What is sequential regimen of oral contraceptive pill?
vi.	What are plasma volume expanders? Give two examples.
vii.	How aspirin is useful as anti-platelet agents?
viii.	What are anabolic steroids? Give two examples.
ix.	Write the use of Statins.
x.	What are Leukotrienes? Give examples.

Section B

(2 X 10 = 20)

2.	Classify oral hypoglycaemic agents and discuss mechanism of action and side effects of sulphonyl ureas.
3.	Write an exhaustive note on pharmacology of anti-anginal drugs.
4.	What are oral contraceptives? Indicate various oral pills and discuss mechanism of action of oral contraceptives.

Section C

(7 X 5 = 35)

5.	Add a brief note on drug therapy of shock.
6.	Write a note on therapeutic uses and side effects of corticosteroids.
7.	Classify anti-thyroid drugs. Explain the mechanism of action of thioureas.
8.	Give an account note on HMG-CoA reductase inhibitors as anti-hyperlipidemic agents.
9.	What are Autocoids? Write a note on bradykinin and substance P.
10.	Explain bioassay of insulin.
11.	Explain the mechanism of action of heparin.
12.	How nitrates exert their vasodilatory and anti-anginal actions?
13.	Write a note on NSAIDS with suitable examples.

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