

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Ph. – SEMESTER 6 – EXAMINATION – WINTER -2025**

**Subject Code: BP605TP****Date: 26/11/2025****Subject Name: Industrial Pharmacy I****Time: 02:30PM TO 05:30PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|------------|---|-----------|
| <b>Q.1</b> | (a) How chemical properties affect the stability of a drug?                     | <b>06</b> |
|            | (b) How Crystallinity and particle size affect the bioavailability of the drug? | <b>05</b> |
|            | (c) Discuss pH-partition hypothesis theory.                                     | <b>05</b> |
| <b>Q.2</b> | (a) What are the advantages of tablet? Discuss the types of tablet.             | <b>06</b> |
|            | (b) How granulation method is decided? Discuss the wet granulation process.     | <b>05</b> |
|            | (c) What are the defects and remedies of tablet coating?                        | <b>05</b> |
| <b>Q.3</b> | (a) Write the formulation and manufacturing consideration of liquid orals.      | <b>06</b> |
|            | (b) Discuss the method to produce HGC shell?                                    | <b>05</b> |
|            | (c) Write in process and final product quality control tests for capsules.      | <b>05</b> |
| <b>Q.4</b> | (a) What are the application of soft gelatin capsules?                          | <b>06</b> |
|            | (b) How pellets are manufactured?   | <b>05</b> |
|            | (c) What are the formulation consideration for parenteral products?             | <b>05</b> |
| <b>Q.5</b> | (a) Discuss the role of excipients in designing parenteral products.            | <b>06</b> |
|            | (b) Discuss the manufacturing process for eye ointment and drops.               | <b>05</b> |
|            | (c) Explain the blow-fill-seal process in detail.                               | <b>05</b> |
| <b>Q.6</b> | (a) Write the formulation and evaluation of cold cream.                         | <b>06</b> |
|            | (b) How aerosols are evaluated?   | <b>05</b> |
|            | (c) What are the legal and official requirements for containers?                | <b>05</b> |
| <b>Q.7</b> | (a) Discuss and draw the container used for Aerosol.                            | <b>06</b> |
|            | (b) What is importance of isotonicity and sterility?                            | <b>05</b> |
|            | (c) Discuss the tooling of tablet rotary press machine.                         | <b>05</b> |

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