

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER-6 EXAMINATION – WINTER -2023**

**Subject Code: BP605TP****Date: 14/12/2023****Subject Name: Industrial Pharmacy I****Time: 02.30 p.m. to 5.30 p.m.****Total Marks: 80****Instructions:**

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

- Q.1** (a) What is preformulation studies? Discuss the importance of polymorphism study at preformulation stage. **06**  
(b) Write a brief note on solid state stability studies in brief. **05**  
(c) Discuss significance of BCS and explain its class boundaries. **05**
- Q.2** (a) Describe the compression processing defects in tablet and give its remedies. **06**  
(b) Explain components and cycle of rotary tablet compression machine. **05**  
(c) Describe dissolution test and its acceptance criteria for conventional release tablets as per IP. **05**
- Q.3** (a) Describe the Uniformity of weight and Uniformity of content for capsules as per the Indian Pharmacopoeia. **06**  
(b) Write a note on excipients used in the formulation of hard gelatin capsules. **05**  
(c) Enlist the various pelletization techniques and explain any one in brief. **05**
- Q.4** (a) Explain the process of Form-Fill-Seal technology in parenteral production. **06**  
(b) Write a note on production facilities and environmental control in the manufacturing of sterile product. **05**  
(c) Describe pyrogen test for infusions as per IP. **05**
- Q.5** (a) Write a short note on sunscreens. **06**  
(b) Enlist the filling methods for aerosols and describe pressure filling method in brief. **05**  
(c) Explain quality control tests for pharmaceutical aerosols. **05**
- Q. 6** (a) Discuss the factors influencing choice of containers for pharmaceuticals. **06**  
(b) Describe the hydrolytic resistance test for classification of glass containers as per IP. **05**  
(c) Write a short note on suspending agent. **05**
- Q.7** (a) Discuss advantages and formulation of film coating for tablets. **06**  
(b) Write a note on the containers, test and labeling of eye ointments. **05**  
(c) Discuss formulation considerations for ophthalmic products. **05**

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