

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – III • EXAMINATION – WINTER - 2022

Subject Code: 230002**Date: 21/02/2023****Subject Name: Pharmaceutical Engineering - II****Time: 10:30am to 01:30pm****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 do you mean by content uniformity? Write its importance in pharmacy. **06**
(b) Write a note on means to achieving the content uniformity in pharmaceutical dosage form. **05**
(c) Explain in depth sampling technique. **05**
- Q.2** (a) Discuss the factors affecting the powder flow. **06**
(b) Define angle of repose and give its pharmacopoeial specifications. **05**
(c) Explain the techniques used to improve the flow properties. **05**
- Q.3** (a) Define control chart. Explain their application in pharmaceutical processing. **06**
(b) Discuss in detail about elements of control chart. **05**
(c) Enlist type of control charts. Explain X bar R variable Chart in detail. **05**
- Q.4** (a) Enlist the pelletization techniques. Explain any one in detail. **06**
(b) Discuss in detail factors affecting pellet properties. **05**
(c) Describe in depth Ram Type Extruder. **05**
- Q.5** (a) Define SCF. Explain fundamental properties of SCF. **06**
(b) Discuss in detail RESS technology for SCF. **05**
(c) Explain the application of SCF in the field of Pharmacy. **05**
- Q.6** (a) Discuss the procedure for content uniformity test as per the USP 29. **06**
(b) Write its importance and application of powder flow. **05**
(c) Describe the advantages of attribute and variable charts. **05**
- Q.7** (a) Explain in detail the role of Eudragit in pelletization. **06**
(b) Define Carr's Index and Hausner Ratio. Write its pharmacopoeial specifications **05**
(c) Write a full note on Gas Anti Solvent Re-crystallization (GAS) technique. **05**
