

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Pharm- SEMESTER-III • EXAMINATION – SUMMER 2017

Subject Code: 230002**Date: 31/05/2017****Subject Name: PHARMACEUTICAL ENGINEERING-II****Time: 02:30 PM to 05:30 PM****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) Explain methods used for measurement of Angle of repose.	06
	(b) How to improve powder flow property.	05
	(c) Enlist application of SCF.	05
Q.2	(a) Define content uniformity. Give significances of content uniformity in pharmacy field.	06
	(b) What are different sampling techniques for content uniformity test?	05
	(c) Explain direct methods for powder flow measurement.	05
Q.3	(a) Draw schematic diagram of control chart and describe elements of control chart.	06
	(b) Short note on interpretation of control chart.	05
	(c) Discuss content uniformity acceptance criteria as per B.P.	05
Q.4	(a) Discuss in detail factors affecting on pellet in extrusion and spheronization.	06
	(b) Short note on hot melt extrusion.	05
	(c) Explain application of control chart.	05
Q.5	(a) What is supercritical fluid? Write theory of SCFs.	06
	(b) Write note on RESS technology.	05
	(c) Explain pharmaceutical application of extrusion.	05
Q. 6	(a) Define extrusion and pelletization. Classify various type of machines used for extrusion process technology.	06
	(b) Explain type of control chart.	05
	(c) Explain the rate holing and arching. Discuss its cases and remedies.	05
Q.7	(a) Explain factors affecting flow of granules.	06
	(b) Short note on M.C.C in pelletization.	05
	(c) Difference between mass uniformity and content uniformity. Explain mass uniformity in detail.	05
