

GUJARAT TECHNOLOGICAL UNIVERSITY
M.PHARM - SEMESTER-2 EXAMINATION – SUMMER-2019

Subject Code: MPT201T**Date: 27/05/2019****Subject Name: Pharmaceutical production management & technology****Time: 10:30 AM TO 01:30 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 the parameters to control the environmental pollution. | 06 |
| | (b) | How is fire hazard prevented and monitored in a Pharmaceutical industry? | 05 |
| | (c) | Explain Industrial effluent testing & its treatment. | 05 |
| Q.2 | (a) | Describe basic requirements of Plant design & Plant layout for sterile products. | 06 |
| | (b) | Discuss Scale up of liquid dosage forms. | 05 |
| | (c) | Enlist different techniques of waste water treatment. And explain various advantages and disadvantages of Conventional and Non-conventional Wastewater Treatment Technologies. | 05 |
| Q.3 | (a) | Explain Scale up parameters of Fluidized bed Coating. | 06 |
| | (b) | Discuss any five key challenges to Pilot Plant Scale-Up in brief. | 05 |
| | (c) | Write a note on Unit Dose System for Pharmaceutical Packaging. | 05 |
| Q.4 | (a) | Explain FFS technology for manufacturing of parenterals. | 06 |
| | (b) | Explain in brief about the role of CIP, WIP & SIP system for Liquid Pharmaceuticals. | 05 |
| | (c) | Write a note on Prefilled Syringe & its applications. | 05 |
| Q.5 | (a) | Write a brief note on the Elements of Control chart with graphical representations. And discuss how to select a Control Chart? | 06 |
| | (b) | Write a short note on HVAC system. | 05 |
| | (c) | Explain key issues in Stability aspects of packaging in Pharmaceuticals. | 05 |
| Q. 6 | (a) | Describe in process quality control tests for hard and soft capsules. | 06 |
| | (b) | Explain problems and remedies in tablets coating. | 05 |
| | (c) | Discuss in process quality tests required during manufacturing of tablets. | 05 |
| Q.7 | (a) | Explain Spheronization process in detail. | 06 |
| | (b) | Describe tablet manufacturing process by wet granulation with a suitable flow diagram. | 05 |
| | (c) | Explain the principle & applications of Lyophilization Technology. | 05 |
