

FACULTY OF PHARMACY

**M. Pharmacy (Pharm. Chemistry) II-Semester (PCI) (Main) Examination,
August 2019**

Subject: Pharmaceutical Process Chemistry

Time: 3 Hrs

Max. Marks: 75

Note: Answer any five questions. All questions carry equal marks.

- 1 (a) Explain in detail validation of Large scale process. (7)
(b) Write a note on case studies of APIS in scale up process. (8)
- 2 (a) Write a note on factors affecting crystallization. (6)
(b) Write a note on types of types of extraction. (9)
- 3 (a) Write the kinetics, mechanism and types of halogenations reactions. (8)
(b) Explain types of oxidation reactions and nonmetallic oxidizing agents. (7)
- 4 (a) Explain the production of Vitamins. (8)
(b) Discuss the case study on Industrial reduction process. (7)
- 5 (a) Write a detailed note on ISO-14001. (8)
(b) Discuss abt effluents and management system in industrie s. (7)
- 6 (a) Explain abt aerobic and anaerobic fermentation with examples. (6)
(b) Write the mechanism of aromatic nitration and process equipment for technical nitration. (9)
- 7 (a) Write a note on characteristics of expedients rtes, cost effective rtes, reagent selection for scale up. (9)
(b) Explain hydrogen transfer reactions in reduction. (6)
- 8 (a) Write the importance of OHSAS. (8)
(b) Write a detailed note on Azeotropic distillation. (7)
