

Code No. 1155/PCI

**FACULTY OF PHARMACY****M. Pharmacy (Pharmaceutics) I-Semester (PCI) (Main) Examination, February 2018****Subject: Modern Pharmaceutics****Time: 3 Hrs****Max. Marks: 75****Note: Answer any five questions. All questions carry equal marks.**

- 1 (a) Discuss the different orders of reaction and their applications? 7  
(b) Discuss the production facilities and formulations of parenterals? 8
- 2 (a) Discuss the ICH guidelines for calibration and validation of equipment with an example? 8  
(b) Describe the validation of tableting process? 7
- 3 (a) Discuss the sales forecasting and budget planning in pharmaceutical industries? 8  
(b) Describe the layout of buildings, services, equipment and their maintenance in industries? 7
- 4 (a) What is compaction profile? Explain the phases of compaction profile with a suitable examples? 5  
(b) Define the term intrinsic solubility? How to determine? its significance? 5  
(c) Explain the properties of granules affecting the compression behavior of tablets? 5
- 5 (a) Discuss student t-test and its applications? 5  
(b) Discuss the pharmacokinetic parameters for determination of bioavailability? 5  
(b) Describe the comparison of dissolution profiles of dosage forms using similarity and difference factors? 5
- 6 (a) Describe the influence of temperature on rate of reaction? 3  
(b) Explain the methods for testing of drug excipient compatibility studies? 6  
(c) Describe the preparation of SMEDDS and their evaluation tests? 6
- 7 (a) Describe the preformulation of suspensions? 4  
(b) Explain the ANOVA test? 7  
(c) Describe the sterilization procedures for evaluation of parenterals? 4
- 8 (a) Discuss the methods for improvement of aqueous solubility of drugs? 8  
(b) Write Heckle equation and draw Heckle plots for porosity and explain them? 7

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