

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

- 1 (a) Explain the methods for testing of drug excipient compatability studies. 6  
(b) Describe the preparation of SMEDDS and their evaluation tests. 6  
(c) Define factorial design. Describe the applications and limitations. 3
- 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 layt 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 ? it's significance? 5  
(c) Explain the properties of granules effecting the compression behavior of tablets. 5
- 5 (a) 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  
(c) Explain the variance and standard deviation with it's significance. 5
- 6 (a) Describe the methods of evaluation of physical stability of emulsions. 5  
(b) Describe the sterilization procedures for evaluation of parenterals. 5  
(c) Describe the chi-square distribution. 5
- 7 (a) Write the methods for determination of the order of a reaction. 8  
(b) Explain the photo degradation and it's testing procedure. 7
- 8 (a) Discuss the methods for improvement of aques solubilty of drugs. 8  
(b) Write Heckle equation and draw Heckle plots for porosity and explain them. 7

\*\*\*\*\*