

Code No: B2101/R10

**R10**

**II B.Pharmacy I Semester Regular Examinations, Mar 2014**  
**PHARMACEUTICAL ENGINEERING**

Time: 3 hours

Max Marks: 75

**Answer any FIVE Questions**  
**All Questions carry equal marks**

\*\*\*\*\*

1. Explain the terms mole, mole fraction and mole volume [15]
2. (a) What are the advantages of differential manometer over simple manometers?  
(b) Write about various types of fluid flow. [8+7]
3. (a) Describe the construction and working of piston and plunger pumps.  
(b) Write notes on rotary pumps. [8+7]
4. (a) Write the application of Kozeny equation in filtration and discuss its limitations.  
(b) Write the relation between Kozeny and the Poiseuille equation. [8+7]
5. (a) Describe how nucleation and crystal growth takes place during crystallization?  
(b) Define polymorphism? what is the importance of polymorphism in pharmacy? [8+7]
6. (a) Write the approaches to dehumidification?  
(b) Write the applications of dehumidification and humidity control? [8+7]
7. Describe in detail about factors influencing the selection of materials for the pharmaceutical plant construction with examples. [15]
8. Write in detail about the preliminary safety procedures given to the persons in fire and chemical hazards in the pharmaceutical industries. [15]

\*\*\*\*\*