

Code No. 8039

FACULTY OF PHARMACY**B. Pharmacy 2/4 I - Semester (Main) Examination, October / November 2014****Subject : Pharmaceutical Engineering - I****Time : 3 Hours****Max. Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) Write about glass as a material of plant construction along with its merits and demerits. (7)
(b) Classify and enumerate different types of corrosion. (7)
OR
(c) Explain about Dimensional analysis with suitable example. Add a note on advantages and disadvantages of it. (7)
(d) Write a note on factors affecting in the selection of materials for pharmaceutical plants. (7)
- 2 (a) Discuss the various methods used for the measurement of flow of fluids in brief. (7)
(b) Write a note on steam traps. (7)
OR
(c) Write a note on : (5+5+4)
(i) Vacuum pumps (ii) Manometers (iii) Fourier's law
- 3 (a) Describe the construction, working and pharmaceutical applications of screw conveyor. (7)
(b) Enlist the equipments used for transportation of solids. Describe any one equipment in detail. (7)
OR
(c) Describe the construction, working of plunger pump with a neat diagram. (7)
(d) With a neat sketch describe the construction working, uses, advantages and limitations of (3.5x2)
(i) plug cock (ii) Gate valve
- 4 (a) Discuss the various methods used for the determination of Humidity. (7)
(b) Explain the principle, working and operation of compression refrigeration system with a neat labelled diagram. (7)
OR
(c) Discuss the factors that determine the refrigeration load in a pharmaceutical plant. (7)
(d) Write a note on : (3.5x2)
(i) Adiabatic saturation temperature (ii) Wet bulb temperature
- 5 (a) Explain the principle, construction, working of plate and frame filter press. (10)
(b) Define filter media and filter aids along with examples. (4)
OR
(c) Explain the working of tubular bowl centrifuge with a neat diagram. (7)
(d) Write a note on membrane filtration and its applications in pharmaceutical industries. (7)
