PY - 301

B.Pharmacy III Semester

Examination, December 2014•

Pharmaceutics - III

(Pharmaceutical Engineering - I)

Time : Three Hours

Maximum Marks: 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii)All questions carry equal marks, out of which partA and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Explain material and energy balance.
b) What is dimensionless equation?
c) Enumerate factors affecting the materials selection for pharmaceutical plants.
d) Give a brief account of properties and uses of stainless steel.

OR

Discuss the applications, advantages and disadvantages of different kinds of glass in pharma industry.

2. a) What is apparent Ignition Temperature?
b) What is flash point.
c) Explain biological corrosion.
d) Discuss various types ofcorrosion.

OR

Discuss different methods of reducing corrosion.

3. a) Name different types of manometers.
b) Give Reynolds's equation.
c) Explain Bernoulli's theorem.
d). What is venturi meter? How is it used for measuring the rate of flow of a fluid through a pipe line?

OR

What are the area variable hydrodynamic meters? Explain construction and working of rotameter.

4. a) Give a classification of various pumps available for transportation of fluids.
b) Classify various conveyors.
c) Explain natural convection and forced convection.
d) Describe the construction and working of a multipass tubular heater with neat labelled diagram.

OR

Giving neat labelled diagrams, explain construction and working of belt-conveyor drives belt-conveyor take-ups.

5. a) What is humid heat?
b) Explain Dew point.
c) Write mite on ionization gauges.
d) Explain wet bulb theory.

OR

Discuss principle and working of air condi