

C.U.SHAH UNIVERSITY

WADHWAN CITY

University (Winter) Examination -2013

Course Name : B.Pharm Sem-I

Subject Name: - Fundamentals of Pharmaceutical Industry

Marks :70

Duration :- 3:00 Hours

Date : 06/1/2014

Instructions:-

- (1) Attempt all Questions of both sections in same answer book / Supplementary.
- (2) Use of Programmable calculator & any other electronic instrument is prohibited.
- (3) Instructions written on main answer Book are strictly to be obeyed.
- (4) Draw neat diagrams & figures (If necessary) at right places.
- (5) Assume suitable & Perfect data if needed.

SECTION-I**Q.1 Define the following terms :**

1. diaphragm valve (2)
2. Air binding (2)
3. Black body. (2)
4. Pressure head. (1)

Q.2 Attempt all

1. Define corrosion? How it will be prevented? (5)
2. Describe the glass used in pharmacy practice. (5)
3. Describe the stainless steel used in pharmacy practice. (4)

OR

1. Classify the materials used for pharmaceutical plant construction. (5)
2. Discuss various factors affecting selection of material of Pharmaceutical plant construction. (5)
3. Discuss advantages and limitations of different kind of plastics used in Pharmaceutical industry. (4)

Q.3 Attempt all

1. Derive Bernoulli's equation. (7)
2. What is a Manometer? Derive equation applicable for simple manometer. (7)

OR

1. What is Reynolds number? Show how it is dimensionless. What is its significance in fluid flow? (7)
2. Explain the energy losses that occur when a fluid flow through a pipe. (7)

SECTION-II**Q.4 Define the following terms:**

1. Grey body. (2)
2. Overall heat transfer coefficient. (2)
3. Galvanic corrosion. (2)
4. Fluidisation (1)

Q.5 Attempt all

1. Compare the centrifugal pump & reciprocating pump. (5)
2. Describe the diaphragm pump. (5)
3. Describe the belt conveyor. (4)

OR

1. Describe the pneumatic conveyor. (5)
2. What is a valve? With a neat and clean diagram describe globe valve. (5)
3. A salt solution originally contains 4% by weight NaCl in water is evaporated to 5% by weight NaCl. (NaCl is a tie substance.) (a) What percentage of water evaporated?
(b) What is the reduction in original solution? (4)

Q.6 Attempt all

1. Compare and contrast Orifice meter and Ventury meter. (7)
 2. Why do we use steam as heating media in Pharmaceutical industry? (7)
- OR**
1. Describe steam traps. (7)
 2. Explain the Fourier's law. (7)

*****6*14*****

