Code No. 4214

FACULTY

B. Pharmacy 2/4 I – Semester (Suppl.) Examination, April 2017

Subject: Pharmaceutical Enineerin — I

Time: 3 Hrs **Max.Marks : 70**

Note: Answer all questions. All questions carry equal marks.

1 a) Discuss the factors to be considered in the selection of materials for pharmaceutical plant construction. 7

b) Describe the different methods for prevention of corrosion. 7

OR

c) Classify and enumerate the different types of corrosion. 7

d) Describe the important properties and uses of stainless steel in the pharmaceutical industry. 7

2 a) Derive and explain Bernlli's theorem. 7

b) Describe the construction and workin of any two steam traps with neat labelled diarams. 7

OR

c) Explain Stefen – Boltzman law of thermal radiation. Explain the concepts of emmisivity and absorptivity of a black body and rey body. 7

d) With a neat diaram, explain the desin and operatio n of liquid to liquid heat interchaner. 7

3 a) Describe the desin, workin and pharmaceutical applications of screw conveyor. 7

b) Write a note on: 7

i) Ejectors

ii) Air lift pump.

OR

c) Describe the construction and operation of a pluner pu mp with a neat diaram. 7

d) Enlist the varis equipments used for transportation of ases. Describe any one. 7

4 a) Define the followin: 8

i) Absolute humidity

ii) Dew point

iii) Wet bulb temperature

iv) Humid heat

b) Explain the principle and workin of absorption refrieration cycle. 6

OR

c) Discuss the different methods used for determination of humidity. 7

d) List t the varis refrierants used in industrial refrierants. Compare their advantaes, disadvantaes and applications . 7

5 a) Explain the construction, workin and applications of leaf filter. 7

b) Discuss the theoretical principles involved in the desin of centrifues. 7

OR

c) Write a note on: 7

i) Filter aids

ii) Seitz filters

d) Compare plate and frame filter press with rotary continus filter. 7

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