

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous)

Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION NOVEMBER – 2016**B.Voc. Pharmaceutical Analysis and Quality Assurance****BVPAQA-102 – UNIT OPERATION-I***Duration of Exam – 3 hrs**Semester – I**Max. Marks – 70***Que. 1 (A) – Answer the following Questions [10]**

1. Define Heat Exchanger.
2. What is Relative Humidity?
3. What is Thickener?
4. What is Net Positive Suction Head ?
5. Write any one function of Condenser.
6. What is Dew point?
7. Define: Calorific value.
8. Give full form of B.T.U.
9. What is Humidifier?
10. Boiling method is used to remove _____hardness of water.

Que. 1 (B)– Answer the following Questions [20]

1. Draw only diagram of finned tube heat exchanger.
2. Write any two industrial functions of Steam.
3. Give comparison of Centrifugal pump over Reciprocating pump.
4. Write about Calgon process with reaction used for purifying water.
5. Draw only diagram of Ion exchange method.
6. Explain combustion of fuel with example.
7. What is Pitch and Clearance used in shell & tube heat exchanger.
8. Give function of coagulating agent with examples.
9. Discuss free and hindered settling in brief.
10. Explain dry and wet bulb temperature in brief.

Que. 2 – Answer the following Questions (Any Four) [20]

1. Discuss Continuous Sedimentation with schematic diagram.
2. Write a note on sources of water used in industries as utility.
3. Explain Zeolite method with neat diagram.
4. Discuss batch sedimentation with schematic diagram.
5. Explain classification boiler in detail.
6. Explain Centrifugal pump with neat diagram.

Que. 3 – Answer the following Questions (Any Four) [20]

1. Give an account of Vertical Tubular Boiler with neat diagram.
2. Explain classification of fuel in detail.
3. Explain construction and working of Reciprocating pump with neat diagram.
4. Explain Shell & Tube Heat exchanger with schematic diagram.
5. Give comparison among Solid, Liquid and Gaseous Fuel.
6. Draw and explain construction & working of Humidifier and Dehumidifier with diagram.