

**Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot**  
Affiliated to Saurashtra University, Rajkot

**SEMESTER END EXAMINATION NOVEMBER – 2017**

**B.Voc. Chemical Technology**

**BVCT-302 - FUNDAMENTAL INDUSTRIAL CHEMISTRY-II**

*Duration of Exam – 2:30 hrs*

*Semester – III*

*Max. Marks – 70*

**Que. 1 (A) – Answer the following Questions**

**[10]**

1. Give any two advantages and disadvantage of fins tube heat Exchanger.
2. Give any two examples of artificial solid fuel.
3. Enlist different types of pumps used for fluid transportation.
4. What is estuarine water?
5. Give only one advantage and disadvantage of vacuum pump.
6. What is counter flow?
7. Write down the principle of water tube boiler.
8. Ball mill gives size reduction to solid material by \_\_\_\_\_&\_\_\_\_\_ principles.
9. Enlist the common heat transfer equipments used in industries.
10. Give Difference between plant air and instrument air.

**Que. 1 (B) – Answer the following Questions**

**[20]**

1. Give advantages and disadvantages of Diaphragm pump.
2. Explain classification of water according to the source.
3. Write short note on double tube heat exchanger.
4. Explain the applications of compress air in industry.
5. Give the usage of boiler in different industry.
6. Explain kick's theory for size reduction
7. Give advantages and disadvantages of plate type heat exchanger.
8. Explain Rittinger's theory for size reduction
9. Draw only schematic diagram of the blower.
10. Write a brief note on B.T.U.

**Que. 2 – Answer the following Questions (Any Four)**

**[20]**

1. Explain treatment and compression of air with diagram.
2. Discuss reciprocating pump with diagram.
3. Explain types, working and uses of fan with neat diagram.
4. Discuss roll crusher in detail.
5. Which factors should be considered for selection of Boiler?
6. Explain ion-exchange method for water softening.

**Que. 3 – Answer the following Questions (Any Four)**

**[20]**

1. Explain Shell & tube heat exchanger with neat diagram.
  2. Give the difference between fire tube and water tube boiler in detail.
  3. Explain zeolite bed method for water softening.
  4. Explain bomb calorimeter with neat diagram.
  5. Discuss Ball mill with schematic diagram.
  6. Explain principle, construction and working and uses of centrifugal pump.
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