

SARDAR PATEL UNIVERSITY
S.Y.B.Sc. Industrial Chemistry
(Semester – IVth) EXAMINATION
16th March 2018, Friday
Course No: US04CICH02
(Chemical Plant Utilities)



Total Marks: 25

Times: 3:00 to 4:30 P.M.

Q.1: Answer the given multiple choice questions.

[3]

1. Permanent hardness can't be removed by
 - a. Adding soda
 - b. Distillation
 - c. Boiling
 - d. Adding lime-soda
2. Which of the following gas is used in making tungsten filaments for electric lamps?
 - a. N₂
 - b. Mixture of N₂ & H₂
 - c. H₂
 - d. CO₂
3. The efficiency of Diesel engine is.....
 - a. 70 to 75%
 - b. 50 to 60%
 - c. up to 45%
 - d. None of these

Q.2: Attempt any two:

[4]

1. What is zeolite?
2. Compare water-tube boiler and fire-tube boiler.
3. Define: (a) Critical temperature (b) Critical pressure

Q.3: Answer the following questions:

[6]

Define carry over and explain priming and foaming in detail.

OR

With the help of labelled diagram explain Deionizer process.

Q.4: Answer the following questions:

[6]

Explain characteristics of good fuel.

OR

Explain advantages of solid, liquid and gaseous fuels over each other.

Q.5: Answer the following questions:

[6]

Derive the equation for efficiency of otto engine.

OR

Explain classification of boilers.