

1st Sem.
2019
B.Tech.

B.Tech (Food Technology) 1st Year
Semester-I Examination -2019
Paper Title: Applied Chemistry
Paper Code: BFTC-104

Time Allowed: 3hr

Maximum marks: 70

(Write your Roll No. at the top immediately on receipt of this question paper)

Section A is Compulsory. Answer any four questions from **Section B**

Section A (5x6=30)

- Q.1 What are the different sources of water pollution?
- Q.2 Describe proximate analysis of coal.
- Q.3 Differentiate between hot and cold lime soda processes
- Q.4 Explain two methods of protection of corrosion.
- Q.5 Describe Nernst's distribution law and its limitations.

Section B (4x10 = 40)

- Q.1 Define hardness of water. What are the different types of hardness of water? 100 ml of sample of water required 40 ml of 0.01M EDTA for titration. After boiling 100 ml of the same sample required 20 ml of 0.01M EDTA. Calculate the total, temporary and permanent hardness of given sample.
- Q.3 Define knocking and octane number. What are the different fractions obtained on fractional distillation of petroleum?
- Q.4 What are the different methods of expressing concentration of solution? 3.65 g of HCl is dissolved in 500 ml of solution find percentage, strength and molarity of resulting solution.
- Q.5 Draw well labeled diagram of Bomb calorimeter. Discuss the process of carbonization of coal.
- Q.6 Write note on *any two* of the following
 - a) Specification for drinking water.
 - b) Wet corrosion.
 - c) Acid rain.

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Sameer
(Dr. Sameer Bano)