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SECOND SEMESTER **B. Tech.**

END SEMESTER EXAMINATION ***May-2019***

AC-104 APPLIED CHEMISTRY

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

Note: Answer any *TEN* questions. All questions carry equal marks
Assume suitable missing data, if any.

1 Define and classify titration. Discuss theory of indicators by taking the example of any one suitable indicator.

2 What is the importance of thermal method of analysis? Draw and write the significance of TGA thermograms.

3 What do you understand by DTA? Explain its thermogram by taking any suitable example.

4 Discuss two methods involved in precipitation titration.

5 State and derive Lamberts Beers's Law. Write four important limitations of the given Law.

6 Write the IR frequencies for –OH; >C=O; $-NO_2$ and -CH in cm^{-1}. Differentiate between intra and inter molecular hydrogen bonding using IR spectroscopy.

7 Explain the mechanism of coordination polymerization by taking any suitable example. Write significance of this method.

8 Write short note on 'Proteins'.

9 What do you understand by Gibbs phase rule? Define triple point. Draw and explain the phase diagram of water in detail.

10 Write any seven principles of green chemistry. Explain any one in detail.

11 What do you understand by secondary batteries? Write the chemical reactions involved in Lead-Acid battery.

12 Write short note on ***any two*** of the following:
(i) Electroplating or Electrodeposition
(ii) Free-radical polymerization
(iii) Characteristics of batteries

questions can from this also