

No. of Printed Pages : 03

Roll No.

A-5

B. Tech. EXAMINATION, Dec. 2018

(First Semester)

(B. Scheme) (Main & Re-appear)

(Common with 2nd Sem.)

CH101B

ENGINEERING CHEMISTRY

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit and Q. No. **1** is compulsory. All questions carry equal marks.

(2-06/6) M-A-5

P.T.O.

1. Explain the following terms :
 - (a) Eutectic points and its characteristics
 - (b) Polished or intrinsic water
 - (c) Degree of polymerisation
 - (d) Extreme pressure additives
 - (e) Fullerenes. 3×5

Unit I

2. Give the various statements of second law of thermodynamics and show that all of them lead to the same goal. 15
3. State the phase rule. With the help of suitable examples explain the terms : 15
Phase, Component and Degree of freedom.

Unit II

4. Explain the term 'Hardness' of water and its determination with the help of EDTA titration method. 15

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5. Write short notes on the following :
 - (a) Pitting corrosion
 - (b) Water-line corrosion
 - (c) Stress corrosion. 3×5

Unit III

6. Write down the synthesis and applications of the following in the light of properties : 3×5
 - (a) PVC
 - (b) SBR
 - (c) Thiokols.
7. Explain the term 'Reinforced Composite'. Discuss the advantages and applications of composites. 15

Unit IV

8. Discuss the following terms and their significance :
 - (a) Viscosity and Viscosity Index
 - (b) Saponification Value
 - (c) Acid value. 3×5
9. Write an explanatory note on 'Flame-photometry'. 15

(2-06/7) M-A-5

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