Marking Scheme

End-Sem Examination-I, Winter 2025

Academic Year: 2025-2026 **Semester: I**

Name of Program: B Tech Chemical Engineering **Pattern: 2023**

Name of Course: Introduction To Chemical Engineering **Course Code:2300118B**

Q.1 Definition – 1 m.
Role of chemical engineering (min 10) each 0.5 mark

Q.2
Basis :
given data – 1 m
Definition – 1 m
Calculate Normality – 2m
Calculate Molarity – 2m

Q.3 (a)
Definition of unit operation – 1 m
classification of unit operation 1 m
Example of unit operation – 2 m
utilization of unit operation – 2 m
Features of unit operation – 2m

3 (b)
About heat transfer theory – 1m
modes of heat transfer – 1 m
conduction with example & dia 2m
Convection with example & dia – 2m
Radiation with example & dia 2m

3 (c)
Size Reduction definition with principle – 2m
Reasons for size reduction – 2m
crushing Explanation 2m
Grinding Explanation 2m

3 (d)
Screening explanation 2m
utility of screening 2m
Sedimentation 2m
Filtration 2m

4@ Sulphonation Definition 4m
Example, Reaction
Oxidation definition 4m
Example, Reaction

4(b) Nitration, Definition – 2m
Explaination
Example (1) with 3m
Explanation 3 reaction
Example 2 with 3m
Explanation reaction

4(c) chlorination definition & Explanation 2m
Chlorination of methane 3m
Chlorination of Benzene 3m

4(d) Reduction definition ~~Example~~ 2m
Explenation
Example with Reaction- 2m
Hydration definition & explan 2m
example with Reaction 2m

5.(a) Temperature scale - 3m
mercury in glass thermometer
diagram (2m) Explanation 3m

5.(b) Pressure measurement – 3m
U-Tube manometer → dia – 2m
Explaination – 3m

5(c) Viscosity definition, explanation
types of viscosity unit – 3m.
Redwood viscometer - dia- 2m
Explaination – 3m

5(d) Flow measurement; types - 3m
units,
Rotameter → dia- 2m
explaination – 3m