

Section-D

Note: Long answer questions. Attempt any Two question out of Three Question. $(2 \times 8 = 16)$

Q.23 Classify various mass transfer operations and give their definitions.

Q.24 Write note on:

- a) Classification of equipment's for distillation and drying.
- b) Homogeneous and heterogeneous reactions.

Q.25 Explain various mode of heat transfer in detail?

No. of Printed Pages : 4

Roll No.....

180517/30526

1st Year Annual Pattern (Re-app)

Branch : Chemical Engineering

Subject : Introduction of Chemical Engineering

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. $(6 \times 1 = 6)$

Q.1 The energy that is emitted matter is form of photons or electromagnetic waves is known as

- a) Conduction
- b) Radiation
- c) Convection
- d) None of these

Q.2 The momentum of an object of mass 'M' moving with a velocity 'V' is _____.

- a) mv^2
- b) $\frac{1}{2}mv^2$
- c) mv
- d) $(mv)^2$

Q.3 SI unit of density is

- a) Kilogram per cubic meters
- b) Kilometer per square meter
- c) Gram per cubic square
- d) None of these

- Q.4 Catalyst is a substance which _____ chemical reaction.
- Increase
 - Decrease
 - Alters the value of equilibrium constant in a reversible
 - None
- Q.5 Which of the following is an extensive property
- Temperature
 - Pressure
 - Mass/Volume ratio
 - Energy
- Q.6 The speed of conduction is high in
- Solid
 - Gas
 - Liquid
 - None of these

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Dehumidification is _____ of moisture from Air.
- Q.8 What is the chemical formula of Ammonia.
- Q.9 Define free convection.

- Q.10 Write full form of CSTR.
- Q.11 What is thermal conductivity.
- Q.12 _____ medium is required for Convection.
- Section-C**
- Note:** Short answer type Questions. Attempt any Eight questions out of Ten Questions. (8x4=32)
- Q.13 Write various uses of urea.
- Q.14 Explain rate of reaction and Rate constant.
- Q.15 Differentiate between homogeneous and heterogeneous reaction.
- Q.16 Give statement of Fourier's law of heat conduction and name each term involved.
- Q.17 Write a Note on Drying and Gas absorption.
- Q.18 What is Mass Transfer operation its importance in Chemical Industry.
- Q.19 Classify the equipment used for distillation and drying.
- Q.20 What is Order of Reaction and Molecularity of reaction.
- Q.21 Write a note on Elementary and Non Elementary reactions.
- Q.22 Write a note on Newton's law of cooling.