

MSc Sem.-2 Examination

411

Polymer Science

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

QUESTION – 1 Write the following

(i)	Write down short note on SBR synthetic rubber with their types?	7 MARKS
(ii)	Describe the processing of Latex and of method of preservative of Latex?	7 MARKS

OR

(i)	What are the differences in between Vulcanization and Curing, Explain the application of Neoprene.	7 MARKS
(ii)	Draw a structure of Poly Vinyl Chloride and write down manufacturing of PVC?	7 MARKS

QUESTION – 2 write the following

(i)	Describe the Method of production of Dispersion and Emulsion.	7 MARKS
(ii)	Explain the Compounding for Neoprene Latex.	7 MARKS

OR

(i)	Why vulcanization is required for Rubber latex, Give an account of accelerators.	7 MARKS
(ii)	Write a short note on Stabilization of Dispersion?	7 MARKS

QUESTION – 3 write the following

(i)	Give brief note on Distribution chemical stability with example?	7 MARKS
(ii)	Define the state of cure and describe the methods for determining the state of cure in polymers.	7 MARKS

OR

(i)	Write short note on Closed and Open cell structure?	7 MARKS
(ii)	Explain the Mechanical stability of polymer?	7 MARKS

QUESTION – 4 Write the following

(i)	Discuss the Manufacturing of latex-based Adhesive?	7 MARKS
(ii)	How is Neoprene latex-coated paper prepared?	7 MARKS

OR

(i)	What is the Latex coated fabrics with examples?	7 MARKS
(ii)	Write down short note on Latex mixed with Cement?	7 MARKS

QUESTION – 5 Attempt any Seven out of Twelve.

(7X2) = 14 MARKS

(P.T.O)

N33A-2

I.	Which tree gives out the rubber latex to obtain natural rubber? (a) Eucalyptus (b) Hevea Brasiliensis (c) Ficus Elastica (d) Hibiscus Syriacus
II.	Name a chemical suitable to prevent the coagulation of latex? (a) Ammonia (b) Sulphuric Acid (c) Formic Acid (d) Sodium hydroxide
III.	Which are the Polymers most suitable for foam manufacturing?
IV.	Name four former material used in latex dipping process
V.	Write down the examples of dispersing agent.
VI.	What is latex compounding?
VII.	Carbon tetrachloride is used to dissolve rubber pieces in the process of chlorination of natural rubber. (True/False)
VIII.	Rubber is an elastomer. (True/False)
IX.	What is micro-porous Ebonite?
X.	Write down any four Industrial uses of Latex.
XI.	Write down the monomers of nitrile rubber.
XII. are used to improve the properties of other material.
