

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – IV • EXAMINATION – SUMMER • 2013****Subject code: 744001****Date: 14-05-2013****Subject Name: Thermosetting Resins & Silane Technology****Time: 10.30 am – 01.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Define the term ‘Resin.’ Discuss in detail about different types of Hydrocarbon Resins. (14)

Q.2 (a) Explain the effect of Resin in Rubber. (07)

(b) How we can relate resin differences to specific concerns? Explain any two in detail. (07)

OR

(b) Discuss the difference between Aliphatic & Aromatic resins with their applications. (07)

Q.3 What do you mean by Phenolic Resin? Write about the varieties of PF resin with their synthesis, differences, chemistry, properties & applications. (14)

OR

Q.3 (a) Explain the manufacturing process of Amino Resin. Discuss the properties & applications of it. (07)

(b) Discuss the aniline point, mixed aniline point and ball & ring softening point test methods used for hydrocarbon resin. (07)

Q.4 (a) Discuss in detail about manufacturing process, formulation, properties & applications for unsaturated polyester resin. (10)

(b) Short note on ‘Epoxy Resin’. (04)

OR

Q.4 (a) Write about production & properties of Acrylic adhesives and Sealants. (10)

(b) List the applications of PU Resin. (04)

Q.5 Discuss the application of Silane coupling agent in different polymers. (14)

OR

Q.5 (a) Explain the function & working of Silane as a coupling agent. (07)

(b) Discuss the factors which influences for selection of Silane coupling agent. (07)
