

III B.Tech II Semester Supplementary Examinations, April/May 2005
PLASTICS AND POLYMERIC MATERIALS
(Metallurgy & Material Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) What are the various types of polymeric reactions. Explain them fully.
(b) What are natural polymers? Explain with suitable examples.
2. (a) What are the different forms of polymers. Explain them.
(b) Distinguish among Random, Alternating and graft copolymers.
3. Discuss the function of the following additives used in polymers.
 - (a) Fullers
 - (b) Lubricants
 - (c) Stabilizers
 - (d) Limitators
 - (e) promoters
 - (f) Photo-degradants.
4. Explain the raw materials used, manufacturing methods, properties and uses of the following:
 - (a) High density polyethylene
 - (b) Poly vinyl chloride
 - (c) Expanded polysterene
5. Write short notes on the following:
 - (a) METHOCRYLATE
 - (b) NYLONS
 - (c) Saturated polyesters.
6. What is a plasticizer? What are the important properties of plasticizer and explain give their important uses and their draw backs.
7. Discuss the effect of the following on the properties of polymers.
 - (a) Temperature
 - (b) Catalyst
 - (c) Solvent

8. (a) Name a few pigments and organic colourants used as polymer additives. What colours they impart to the polymer.
- (b) Explain the significance of glass transition temperature.

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