

PT306 PLASTIC TECHNOLOGY

Time: 1 Hour 30 min

Max. Marks: 30

Note: Answer all questions. All questions carry equal marks.
Assume suitable missing data, if any.

- 1 [a] What is *LLDPE* and how is it different from *LDPE*? Briefly explain the process for making *mLLDPE*.
[b] Explain the manufacturing method for the economical production of isotactic Polypropylene.
- 2 [a] What are the important additives used during PVC production? Explain with examples. Also, briefly evaluate the environmental impact of PVC.
[b] How is Super Absorbent Polymer (SAP) prepared? Compare its properties and applications with those of Poly(methyl acrylate).
- 3 [a] Write three important trade names for PMMA. List the processing techniques for this polymer. Also write its important applications.
[b] How is the 'Wood glue' produced (starting from the monomer)? Briefly describe the most common method for its polymerization process.
- 4 [a] How is PVA made commercially? Analyze various important grades of PVA.
[b] Describe the method used for PET bottle production. Also, comment on PET recycling.
- 5 [a] Write the reactions for the preparation of polybutylene terephthalate. What are its important blends and their applications?
[b] Are inorganic pigments suitable for polyolefins? Justify your answer. Also, write at least three examples of inorganic pigments (along with their colours).

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