

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Write short note on

- a) Bulk polymerization
- b) Solution polymerization

Q.24 Explain number average molecular weight and weight average molecular weight of polymers.

Q.25 Write short note on composites.

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1st Sem. / Plastic Technology

Subject : Introduction to Polymer Science and Technology

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Degree of polymerization

- a) Number of repeating unit
- b) Number of monomers
- c) Both A & B
- d) None of these

Q.2 Elastomeric properties are in

- a) Plastics materials b) Steel material
- c) Rubbery material d) All of these

Q.3 Natural polymer is/are example of

- a) Jute b) Cotton
- c) Silk d) All of these

(60)

(4)

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(1)

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Q.4 Source of synthetic polymer

- a) Manmade source b) Natural source
- c) Both A & B d) None of these

Q.5 Amorphous polymer means

- a) Regular shape b) Irregular shape
- c) Both A & B d) None of these

Q.6 Unit of molecular weight of polymer

- a) g/mole b) Kg/mole
- c) Both A & B d) None of these

SECTION-B

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

Q.7 Define polymerization.

Q.8 Define flow.

Q.9 Define fluid.

Q.10 Define crystalline polymer.

Q.11 Write SI unit of viscosity.

Q.12 Write structural formula of polypropylene.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Define fluids and their classification.

Q.14 Write classification of flow and explain laminar and turbulent flow.

Q.15 Discuss practical significance of polymer molecular weight.

Q.16 Determine molecular weight of polymers by viscometry.

Q.17 Explain T_g and its importance.

Q.18 What are the techniques to determine T_g explain any one of them.

Q.19 Write an expression of reaction mechanism of condensation polymerization.

Q.20 Discuss emulsion polymerization and their disadvantages.

Q.21 Discuss chemical modification of polymers.

Q.22 What are the factors which effect T_g?