

- Q.27 Discuss on stages on product development.
- Q.28 What is product life cycle.
- Q.29 What is feasibility study.
- Q.30 Give difference between artistic and engineering shapes.
- Q.31 Discuss gate size and location.
- Q.32 Discuss inside sharp corners.
- Q.33 Explain two long term properties.
- Q.34 Explain insert and their types.
- Q.35 Explain undercuts and their classification.

#### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Discuss various stages of product development.
- Q.37 What are preliminary design considerations? Explain their importance in product design.
- Q.38 Write short note on cost economics and its selection.

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**6th Sem / Plastic, Chem. Engg. (Spl. Polymer Tech)**

**Sub.: Plastic Product Design**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The life cycle of a product includes
- Extraction of natural's resources
  - Processing of raw materials
  - Manufacturing of product
  - All of these
- Q.2 The mechanical properties of good product materials are
- Strength
  - Toughness
  - Ductility
  - All of these
- Q.3 Post processing operation is/are
- Printing
  - Painting
  - Electroplating
  - All of these
- Q.4 Nominal design of wall thickness the molten material flows
- Thick to thin section
  - Thin to thick section
  - Both A & B
  - None of these

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- Q.5 Parting line presents on
- Outer surface of product
  - Inner surface of product
  - Both A & B
  - None of these
- Q.6 Bosses are
- Protruding stud
  - To give strength
  - Both A & B
  - None of these
- Q.7 Ribs are provided
- To give strength
  - Locking purpose
  - Both A & B
  - None of these
- Q.8 Threads are provided to
- Locking purpose
  - Making leak proof
  - Both A & B
  - None of these
- Q.9 Blind holes are
- One side open
  - Both side open
  - Both A & B
  - None of these
- Q.10 Tapering is done for
- To reduce thickness
  - For providing finish
  - Both A & B
  - None of these

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## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define ribs.
- Q.12 Define bosses.
- Q.13 Define weld line.
- Q.14 Define parting surface.
- Q.15 Define threads.
- Q.16 Define undercuts.
- Q.17 Define texturing.
- Q.18 Expand EDM.
- Q.19 Define taper.
- Q.20 What is parting line?

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Give four advantages of drilled holes over molded holes.
- Q.22 What is wall thickness.
- Q.23 Discuss surface finish.
- Q.24 Discuss limitation of plastic design.
- Q.25 Discuss material selection and its characteristics.
- Q.26 Discuss radii and fillets.

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