

- Q.28 Write short note on shapes used in plastic product designing.
- Q.29 Discuss texturing and its types
- Q.30 Explain various methods used for preparing textured patterns.
- Q.31 Explain ribs and bosses (With neat sketch)
- Q.32 Explain Surface finish used in plastics product design.
- Q.33 Discuss drilling process for plastics.
- Q.34 Explain Cost economics and its effect on plastic product design.
- Q.35 Discuss various processing limitations of polymer product design.

SECTION-D

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

- Q.36 Discuss in detail the various materials and their selection for particular application in plastic product design.
- Q.37 Explain with the help of neat sketch, various welding techniques used in plastic joining and assembling.
- Q.38 Write short note on:
- Various mechanical requirements of plastic product design.
 - Explain various types of holes and their positioning.

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6th Sem / Plastic ENGINEERING, CHEM ENGG (SPL POLYMER TECH)

Subject:- PLASTIC PRODUCT DESIGN

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 What should be the minimum distance between two consecutive holes ____.
- 4xd
 - 2xd
 - 3xd
 - None of these
- Q.2 The aim of feasibility study is ____.
- To determine sources and profitability of organisation
 - To improve mould design
 - To give reaction in polymers
 - None of the above
- Q.3 Which of the following is not a type of welding ?
- Ultrasonic
 - Induction
 - Hot gas
 - rivet
- Q.4 The plastic should have ____ wall thickness.
- Uniform
 - Non-uniform
 - Irregular
 - None of these

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- Q.5 What frequency is used in high frequency welding technique ?
 a) 80Hz b) 50Hz
 c) 20Hz d) 150Hz
- Q.6 Minimum radius given in fillets for any plastic product design is _____
 a) 3/8 inch b) 1/2 inch
 c) 1/4 inch d) 1 inch
- Q.7 Which part of the moulding process determines the diameter and wall-thickness of product?
 a) Molten plastic b) Die gap
 c) Mold cavity d) Blow pin
- Q.8 What must be avoided while designing mould component in blow moulding ?
 a) Radii b) Bend
 c) Fillet d) sharp corners
- Q.9 Name the solvent used for PVC
 a) MEK b) MCI
 c) Benzene d) Ethanol
- Q.10 Which the most difficult shape to prepare ?
 a) Artistic shapes b) Engineering shapes
 c) Plain utility d) None of the above

SECTION-B

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

- Q.11 Give one function of gate.

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- Q.12 Name two types of holes used in plastic product design.
- Q.13 Name different types of undercut
- Q.14 Draw any one insert for plastic molding
- Q.15 Give two advantages of Ribs
- Q.16 Alphabets and letters are generally used for _____
- Q.17 Instead of having one heavy rib, we should design two thin ribs. (True/False)
- Q.18 Which gas is used in hot gas welding ?
- Q.19 Line formed by meeting of two parallel flow fronts is known as ____.
- Q.20 Gates should be located at the corners to provide longitudinal flow to material to reduce problem of shrinkage.(True / False)

SECTION-C

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

- Q.21 Explain product life cycle and its stages
- Q.22 What is feasibility study and it is important for any organization.
- Q.23 Explain hot gas welding.
- Q.24 Discuss various type of threads used in plastic product design.
- Q.25 Explain gate side and its location.
- Q.26 Discuss the causes and remedies for weld line defect
- Q.27 Explain solvent cementing in plastic joining.

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