

- 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.

No. of Printed Pages : 4
Roll No.

182265/122265/
032256/2263

**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 _____.
a) $4xd$ b) $2xd$
c) $3xd$ d) None of these

Q.2 The aim of feasibility study is _____.
a) To determine sources and profitability of organisation
b) To improve mould design
c) To give reaction in polymers
d) None of the above

Q.3 Which of the following is not a type of welding ?
a) Ultrasonic b) Induction
c) Hot gas d) rivet

Q.4 The plastic should have _____ wall thickness.
a) Uniform b) Non-uniform
c) Irregular d) None of these

- 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.

(2)

182265/122265/
032256/2263

- 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.

(3)

182265/122265/
032256/2263