No. of Printed Pages : 4 182265/122265/032256
Roll No. ..... /2263

6th Sem / Plastic, 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 Maxi draft angle used in Plastic product design

a) 0.5 to 1.5 b) 1.5 to 3.0

c) Both A & B d) None of these

Q.2 The positive tolerances are also called as_____

a) Clearance fit b) Interference fit

c) Both A & B d) None of these

Q.3 The inserts are generally made of

a) Same material as of plastic

b) Metals

c) Brass

d) None of these

Q.4 Ribs are provided for

a) Better strength b) To decorate

c) Both A & B d) None of these

Q.5 Outer corner radius should be_____ times wall thickness

Q.28 Differentiate between drilled holes and molded holes.

Q.29 Write four advantages of ribs.

Q.30 Explain gate side and location.

Q.31 Explain undercut and their types.

Q.32 Write short note on product life cycle.

Q.33 What are the various processing limitations of plastic product?

Q.34 What are the stages of product development?

Q.35 Explain design features of wall thickness for thermoplastic materials.

SECTION-D

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

Q.36 Explain in brief preliminary design considerations and their importance in Product design.

Q.37 Write short note on

a) Cementing

b) Cost economic and its selection

Q.38 Explain case study of statically and dynamically loaded plastic product like as gears.

a) 1.5 b) 2
c) 0.5 d) 10

Q.6 _____ is the anchoring unit between to plastic parts?

a) Ribs b) Bosses
c) Both A & B d) None of these

Q.7 The excess material flow out of the cavity and form thin layer of plastic is called as

a) Flash b) Sink mark
c) Warpage d) Blister

Q.8 Draft is provided for

a) Improving strength of component
b) Easy removal of component
c) Increase stiffness
d) Proper shrinkage

Q.9 Which of the welding process is used for thermoplastic?

a) Hot gas welding b) Induction welding
c) Heated tool d) All of these

Q.10 Cavity provides

a) Internal shape of the product
b) External shape of the product
c) Both A & B
d) None of these

SECTION-B

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

Q.11 Define lettering.

Q.12 Define weld lines.

Q.13 Define gate.

Q.14 Define bosses.

Q.15 What is radii.

Q.16 What is an intersection hole?

Q.17 What is Acme thread with neat sketch?

Q.18 Define proto type article.

Q.19 What are undercuts and their types?

Q.20 What is fillet.

SECTION-C

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

Q.21 Explain ribs and bosses.

Q.22 Discuss inside sharp corners.

Q.23 Explain cementing and adhesion.

Q.24 Explain insert and their types.

Q.25 Explain threads and their classification.

Q.26 Explain feasibility study.

Q.27 Give limitation of plastic design.