Q.25 Explain various types of holes and their positioning with diagram.
Q.26 Explain product life cycle and its stages.
Q.27 Discuss plastic threads and their types.
Q.28 Discuss drilling process for plastics
Q.29 Explain friction or spin welding with diagram
Q.30 Discuss Tolerance and its types
Q.31 Discuss wall thickness and its importance in plastic product design.
Q.32 Explain weld line.
Q.33 Write short note on shapes used in plastic product designing.
Q.34 Explain ribs and bosses (with neat sketch)
Q.35 Discuss solvent cementing and adhesion.

SECTION-D

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

Q.36 Explain various preliminary design considerations for plastic product design.
Q.37 Discuss in detail the various materials and their selection for particular application in plastic product design.
Q.38 Write short note on :
a) Cost economics and its effect on plastic products design.
b) Explain various processing limitations of polymer product design.

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Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 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.2 Which process is preferred for manufacturing plastic bottles?
a) Blow moulding b) Die casting
c) Injection moulding d) Atomizing

Q.3 PLC stands for _____.
a) Product life circle b) Product last cycle
c) Plastic life circle d) Product life cycle

Q.4 Methods of adhesion, in which parent material is used as dope is known as _____.
a) Solvent adhesion b) Solvent cementing
c) Solvent doping d) None of the above

Q.5 Alphabets and letters are generally used for ____.

a) Identification of shift

b) for displaying company logos

c) For texturing effect

d) All of these.

Q.6 What must be avoided while designing mould component in blow moulding ?

a) Radii b) bend

c) fillet d) Sharp corners

Q.7 Which is not a type of gate used in plastic processing.

a) Fan b) Ring

c) Sprue d) Diaphragm

Q.8 Name the solvent used for PMMA

a) MEK b) MCI

c) benzene d) ethanol

Q.9 _____should be the draft angle used in plastic products.

a) 5^0 b) 6^0

c) 4^0 d) $^1/_2{}^0$

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 Line formed by meeting of two parallel flow fronts is known as_____.

Q.12 Gates should be located at the corners to provide longitudinal flow to material to reduce problem of shrinkage. (True/false)

Q.13 Name two types of holes used in plastic designs

Q.14 Define fillet.

Q.15 _____should be the minimum draft angle used in plastic products.

Q.16 Name various shapes used in plastic product designs

Q.17 Hobbing is a used for giving_____ in plastic design

Q.18 Name different types of undercut.

Q.19 Name two processing limitations of plastic processing.

Q.20 Alphabets and letters are generally used for_____.

SECTION-C

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

Q.21 Write short note on surface finish used in plastic product design.

Q.22 Explain various methods used for preparing textured patterns

Q.23 Define feasibility study and its importance.

Q.24 Explain gate side and its location.