

Q.22 Describe standard procedures for storage of moulds.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain design and drawing of conventional two plate mould for injection moulding for single cavity with complete Bill of material by taking suitable example.

Q.24 Write short note on:

- a) Rotational moulding process
- b) Classification of cooling and ejection system of Injection moulds.

Q.25 Explain design parameters and calculations:

- a) For gate size, runner size, sprue size, guide pillar size
- b) Blow time, cooling period, and pinch-off selection for any blow mould.

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2nd Year / Advance Diploma in Tool and Die Making

Subject : Tool Design - II (Plastic Moulds)

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 _____ is the main criteria to specify the compression moulding machine

- a) press tonnage
- b) Rate of production
- c) Area of machine
- d) Cost of machine

Q.2 In compounding different polymer are mixed with _____ in a fixed ratio to improve overall properties.

- a) Resins
- b) Binders
- c) fibers
- d) Additives

Q.3 _____ material is self-extinguishing in nature?

- a) Polyethylene (PE)
- b) Polypropylene (PP)
- c) Poly Vinyl Chloride
- d) Poly-acetal

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- Q.4 Which plastic is used for coating cook ware?
- Poly tetra flouro ethylene
 - Poly propylene
 - Poly vinyl chloride
 - Poly carbonate
- Q.5 Which zone covers the 50% length of the injection moulding screw?
- Feed
 - Metering
 - Compression
 - Melting
- Q.6 How the Flash is removed from added product?
- Moulding
 - Trimming
 - Heating
 - Cooling

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

- Q.7 _____ forces the material through the nozzle and into the mould
- Q.8 Give one application of electroplating and etching
- Q.9 _____ also serves as the filter for the melt.
- Q.10 Name the printing process in which finished part look like metal is _____?

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Q.11 _____ maintenance is a regular period planned maintenance, which eliminates breakdown.

Q.12 Name two products made by Compression moulding

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

- Q.13 Explain calculations related to establishment of hot runner system.
- Q.14 Write short note on classification of plastic materials.
- Q.15 Explain classification of compression moulds.
- Q.16 Define thermoforming and its types.
- Q.17 Explain concept of ejection and feed system in mould.
- Q.18 Give difference between two plate and three plate mould
- Q.19 How will you calculate the heat to be transferred per hr, and amount of water to be circulated/hr?
- Q.20 Describe procedure for detail model and prepare the bill of material.
- Q.21 Explain material estimation for plastic and mould, machine time estimation for mould making, cycle time estimation.

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