

- Q.26 Name various types of thermoforming process.  
Explain any one with neat sketch.
- Q.27 Give difference between Positive and semi-positive compression mould.
- Q.28 Write short note on plunger type transfer moulds.
- Q.29 Discuss types of rotational moulds.
- Q.30 Explain the method of temperature control in transfer moulding process.
- Q.31 Explain power assisted polishing kits.
- Q.32 Describe procedure for estimating moulding cost per unit hour.
- Q.33 Explain classification of simulation packages.
- Q.34 Describe standard procedures for storage of moulds.
- Q.35 Describe two methods of surface finishing.

#### **SECTION-D**

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

- Q.36 Explain principle, construction and working of transfer moulding machine in detail.
- Q.37 Write short note on:
- Compare Injection moulding and blow moulding process
  - Feeding system, heating system, ejection system of injection moulding machine
- Q.38 Explain difference between compression moulding process and transfer moulding process.

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**3rd Year / Advance Diploma in tool and Die making**

**Subject:- Tool Design Theory - III (Plastic Moulds)**

Time : 3Hrs.

M.M. : 100

#### **SECTION-A**

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

- Q.1 What is freeze line in blow film?
- Its' height from die face at which the melt freeze
  - It's width from die face at which the melt freeze
  - It's diameter at which the melt freeze
  - It's radius at which the melt freeze
- Q.2 What is nominal blow up ratio for film?
- 1:2
  - 2:1
  - 1:3
  - 2:4
- Q.3 Which form of material is used in Rotational Moulding?
- Powder
  - Granule
  - Crystal
  - Liquid
- Q.4 Which process makes hollow one-piece item product?
- Rotational Moulding
  - Blow Moulding
  - Injection Moulding
  - Thermoforming
- Q.5 Which process using the side feed die?
- Sheet making
  - Pipe making
  - Blow film extrusion
  - Wire insulation

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- Q.6 What type of product is produced by blow moulding process?  
 a) Solid pin      b) bush  
 c) bottle      d) pipe
- Q.7 A list of the raw materials, sub-assemblies, intermediate assemblies, sub-components, parts and the quantities of each needed to manufacture an end product is known as \_\_\_\_\_.  
 a) Raw materials  
 b) Finished goods  
 c) Work in Process (WIP)  
 d) Bill of materials
- Q.8 Which type of mould requires accurate weighed charge material in compression moulding?  
 a) Flash mould      b) Positive mould  
 c) Landed mould      d) Semi-positive mould
- Q.9 What is the name of called the maximum weight of plastic can be injected by single product?  
 a) shot weight      b) moulding cycle  
 c) capacity      d) injection speed
- Q.10 What is the name of process in which materials is preheated in one chamber and moulded in another chamber by application of heat and pressure?  
 a) Compression mould      b) Transfer mould  
 c) Rotational mould      d) Hand lay-up

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 \_\_\_\_\_ is the minimum thickness required by the plastic for vacuum forming.
- Q.12 \_\_\_\_\_ is the excess material flow out from mould in compression moulding.
- Q.13 Name three zones of barrel of Injection moulding machine.
- Q.14 \_\_\_\_\_ die is used for wire coating.
- Q.15 Name two products made by rotational moulding.
- Q.16 Mould closing and opening depends on size of the component. (True/False)
- Q.17 \_\_\_\_\_ is the function of Tie bar?
- Q.18 \_\_\_\_\_ connects cavity to runner? (sprue/gates)
- Q.19 Name two type of heating system.
- Q.20 \_\_\_\_\_ is used to keep core and cavity in alignment.

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Explain classification of industrial application of plastics, plastics material and mould material.
- Q.22 Discuss selection parameters of Injection moulding machine.
- Q.23 Explain principle of compression moulding machine.
- Q.24 Discuss classification and function of various rotational mould.
- Q.25 Explain principles of thermoforming.