

- Q.27 Explain difference between cartridge heaters and band heaters.
- Q.28 What is curling of parison? Suggest remedies.
- Q.29 State four defects in Rotational moulding process and discuss its probable cause and remedies.
- Q.30 State four defects in blow moulding process and discuss its probable causes and remedies.
- Q.31 Discuss the role of limit switch and thermocouple in injection moulding process.
- Q.32 State merits of Bi-axially oriented Blow moulding products.
- Q.33 Explain parison swell.
- Q.34 Explain importance of mould venting.
- Q.35 Explain various electrical electronics system in injection moulding machine.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the injection stretch blow moulding process with neat sketch.
- Q.37 Discuss :
- Injection moulding for thermosets.
  - Heating and cooling systems in Rotational moulding.
- Q.38 Explain the reciprocating screw type injection moulding process with neat sketch.

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#### 5th Sem / Branch : Plastic Sub.: Plastic Processing Techniques - III

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 In the \_\_\_\_\_ process, thermoplastic resins are melted and injected into a mold.
- Extrusion Moulding
  - Compression Moulding
  - Injection Moulding
  - Thermoforming
- Q.2 When the \_\_\_\_\_ freezes, melt can no longer exit the cavity.
- Gate
  - Runner
  - Sprue
  - Component
- Q.3 \_\_\_\_\_ prevents the mould from moving back when materials is injected in mould.
- Clamping Pressure
  - Holding Pressure
  - Packing Pressure
  - Holding Temperature
- Q.4 Distance between the stationary platen and the moving platen on a moulding press when the actuating system is fully retracted.
- Daylight
  - Red Light
  - Clamping
  - None of these

- Q.5 Type of clamping mechanism:
- Hydraulic
  - Toggle
  - Both A & B
  - None of these
- Q.6 L/D ratio is \_\_\_\_.
- Length of barrel to Diameter of barrel
  - Length of Extruder to Diameter of extruder
  - Length of die to Diameter of die opening
  - Length of the screw to Diameter of screw
- Q.7 \_\_\_\_\_ is a process of manufacturing hollow plastic parts.
- Extrusion moulding
  - Injection moulding
  - Blow moulding
  - Compression moulding
- Q.8 The \_\_\_\_\_ gives the bottle its shape.
- Forced Air
  - Water
  - Oil
  - Parison
- Q.9 Plastics which are moulded and reheated again to change their shapes are :
- Thermoset
  - Thermoplastic
  - Elastomer
  - None of these
- Q.10 The \_\_\_\_\_ can be modified from its normal concentric tubular shape.
- Nozzle
  - Sprue
  - Parison
  - Barrel

## SECTION-B

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

- Q.11 The cylindrical housing in which the screw rotates in known as \_\_\_\_.
- Q.12 Name two defects in injection moulding process.
- Q.13 A fully finished, closed tolerance container with no scrap can be produced by \_\_\_\_\_ process.
- Q.14 Parison thickness can be modified in the lengthwise direction using \_\_\_\_\_.
- Q.15 Give two types of blow moulding process.
- Q.16 The prominent inhomogeneous snake like strands on the surface of molding is known as \_\_\_\_\_.
- Q.17 Define compression ratio in injection moulding.
- Q.18 Name two defects of blow moulding.
- Q.19 Name two products made by rotational moulding.
- Q.20 \_\_\_\_\_ is equal to Hoop ratio times axial ratio.

## SECTION-C

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

- Q.21 Name different types of rotational moulding machines. Explain any one in short.
- Q.22 Explain blow moulding for irregular shapes.
- Q.23 Discuss selection criteria for injection moulding machine.
- Q.24 State basic principle of rotational moulding machine.
- Q.25 Draw injection mould cycle.
- Q.26 Distinguish between shear rate & injection pressure.