

- Q.26 Discuss vacuum metalizing technique.
- Q.27 Discuss preliminary idea of extrusion process.
- Q.28 Explain any four defects and remedies in injection moulding process.
- Q.29 Explain hot stamping.
- Q.30 What do you understand by post processing operations.
- Q.31 Discuss gravure printing.
- Q.32 Discuss electrical control system of Injection moulding.
- Q.33 Discuss the effect of shear force in injection moulding process.
- Q.34 Explain different type of screw used in injection moulding.
- Q.35 Explain Day-light of Injection-moulding machine.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain with labeled diagram, different zones of Injection moulding process and also explain their functions.
- Q.37 Give preliminary idea of:
- Blow moulding
  - Compression moulding
- Q.38 Discuss:
- Flexographic printing
  - Injection moulding of thermosets

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### 4th Sem / Plastic Engineering Subject:- Plastic Processing Techniques - I

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Which zone covers the 50% length of the injection moulding screw?
- Feed
  - Metric
  - Compression
  - Melting
- Q.2 Which types of heaters are used for hand injection moulding machine?
- Cartridge heater
  - Band heaters
  - Coil type heaters
  - Immersed types heaters
- Q.3 What is the purpose of ejector pin?
- Keeping
  - Cooling
  - Ejection
  - Injection
- Q.4 \_\_\_\_\_ prevents the melt from flowing back into the runner.
- Clamping pressure
  - Holding pressure
  - Packing pressure
  - Holding temperature

- Q.5 What is the advantage of runner less mould?
- Increase cycle time
  - Low wastage of material
  - Decrease pressure
  - Increased wastage of material
- Q.6 What is the name of called the forward speed of the screw during its injection operation?
- injection speed
  - injection pressure
  - shot weight
  - None of them
- Q.7 What is the name of called the maximum weight of plastic can be injected by single product?
- Shot weight
  - moulding cycle
  - Capacity
  - Injection speed
- Q.8 Which part located the sprue bush in an injection moulding?
- movable platen
  - fixed platen
  - tail plate
  - screw
- Q.9 What is the name of heart of hydraulic system?
- valves
  - pump
  - accumulator
  - oil tank
- Q.10 Which form of raw materials are uses in a hand injection moulding machine?
- Sheet
  - Liquid
  - Powder
  - Granules

## SECTION-B

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

- Q.11 \_\_\_\_\_ is the remedy for silver streak defect in injection moulding?
- Q.12 What is the primary step in an injection moulding cycle? (Closing or cooling)
- Q.13 \_\_\_\_\_ is the function of Tie bar?
- Q.14 Define plasticizing capacity.
- Q.15 Name three zones of barrel.
- Q.16 \_\_\_\_\_ is the clearance between screw and the barrel (0.002mm or 1.00mm)?
- Q.17 Suggest any one corrective action for flashing.
- Q.18 \_\_\_\_\_ is the standard Helix angle of screw?
- Q.19 Which of the following material is not made by injection moulding? (Car handle/Tubes)
- Q.20 Name two type of heating system.

## SECTION-C

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

- Q.21 Explain screen printing technique.
- Q.22 Suggest some remedies for reducing warpage in plastic components.
- Q.23 Discuss the effect of shear force in injection moulding process.
- Q.24 Write short note on vacuum metallization.
- Q.25 How will you prepare raw material before processing?