

Q.35 Give three corrective actions to remove burn mark defect in injection moulding.

### SECTION-D

**Note :** Long Answer type question. Attempt any two questions.  $(2 \times 10 = 20)$

Q.36 Explain with labeled diagram, different zones of injection moulding process and also explain their functions.

Q.37 Write short note on :

- a) Vacuum metallising process
- b) Screen Printing

Q.38 Discuss :

- a) Gravure printing
- b) Injection moulding of thermosets.

b)

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

Time : 3 Hrs.

M.M. : 100

### SECTION-A

**Note :** Multiple choice questions. All questions are compulsory.  $(10 \times 1 = 10)$

- Q.1 When \_\_\_\_\_ freezes, melt can no longer exit cavity.
- a) Gate
  - b) Sprue
  - c) Runner
  - d) Valve
- Q.2 At the end of the \_\_\_\_\_ the mould is opened and part is ejected.
- a) Melting stage
  - b) Injection stage
  - c) Filling stage
  - d) Cooling stage
- Q.3 The \_\_\_\_\_ forces the material through the nozzle and into the mould.
- a) Screw
  - b) Plunger
  - c) Pinion
  - d) Rack
- Q.4 The mould is locked in position using \_\_\_\_\_
- a) Locking handle
  - b) Pinion handle
  - c) Ball bearing
  - d) Spring
- Q.5 In three plate mould design feature a third plate represents \_\_\_\_\_
- a) Stationary
  - b) Moveable
  - c) Fixed
  - d) None of them

Q.6 \_\_\_\_\_ is injected into the mould to produce components.

- a) Molten plastic
- b) Granules
- c) Powder
- d) Wet plastic

Q.7 \_\_\_\_\_ is caused when injection speed is too slow.

- a) Black marks
- b) Bubble
- c) Flow marks
- d) None of them

Q.8 The most common type of gate is \_\_\_\_\_

- a) Tab
- b) Submarine
- c) Edge
- d) Ring

Q.9 Shot weight is measured in terms of \_\_\_\_\_

- a) Poly styrene
- b) Poly ethylene
- c) Poly phenylene
- d) None of the above

Q.10 Injection moulding is a \_\_\_\_\_ process.

- a) Continuous
- b) Batch
- c) Uniform
- d) Random

## SECTION-B

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

Q.11 C : R ratio means \_\_\_\_\_.

Q.12 Define plasticizing capacity.

Q.13 How to remove entrapped air from mould?

Q.14 \_\_\_\_\_ gate is used for tubular component.

Q.15 Name three zones of barrel.

Q.16 Define shrinkage.

Q.17 Suggest any one corrective action for flashing.

Q.18 Poor tooling design results in \_\_\_\_\_.

Q.19 When temperature is very low \_\_\_\_\_ will form.

Q.20 \_\_\_\_\_ provides connection between runner and cavity.

## SECTION-C

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

Q.21 Explain electroplating.

Q.22 Give principle of blow moulding process.

Q.23 Define transfer moulding process and also name any two components made by this process.

Q.24 Explain different types of screw used in injection moulding.

Q.25 Give three corrective actions to remove flash defect in injection moulding.

Q.26 Discuss hot stamping process.

Q.27 Explain any 5 defects in injection moulding.

Q.28 Explain the need of purging?

Q.29 Explain pad printing.

Q.30 Explain Daylight of injection moulding machine.

Q.31 Discuss principle of rotational moulding.

Q.32 Explain start-up and shut down procedure for injection moulding machine.

Q.33 Explain clamping force and its types.

Q.34 Explain Flexographic printing.