

- 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:
 a) Blow moulding
 b) Compression moulding
 Q.38 Discuss:
 a) Flexographic printing
 b) 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?
 a) Feed b) Metric
 c) Compression d) Melting
 Q.2 Which types of heaters are used for hand injection moulding machine?
 a) Cartridge heater
 b) Band heaters
 c) Coil type heaters
 d) Immersed types heaters
 Q.3 What is the purpose of ejector pin?
 a) Keeping b) Cooling
 c) Ejection d) Injection
 Q.4 _____ prevents the melt from flowing back into the runner.
 a) Clamping pressure b) Holding pressure
 c) Packing pressure d) Holding temperature

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- 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. $(10 \times 1 = 10)$

- 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. $(12 \times 5 = 60)$

- 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?