

- Q.27 Explain injection moulding of the thermosets.
- Q.28 Why vents are used in moulds. Give the significance of vents.
- Q.29 Define the term  
 a) Hopper                                      b) Barrel
- Q.30 Define the terms:  
 a) Injection rate                              b) Plastication capacity
- Q.31 Distinguish between shear rate & injection pressure.
- Q.32 State four defects in Rotational moulding process and discuss its causes and remedies.
- Q.33 State advantages of Hydraulic clamping system.
- Q.34 Draw neat Sketch of Hand injection Moulding machine.
- Q.35 Write the start up and shut down procedure of injection moulding machine.

#### Section-D

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

- Q.36 Explain rotational moulding machine with help of diagram, also explain its working principle.
- Q.37 Discuss :  
 a) Write down any five faults and their remedies in blow moulding process  
 b) Parison wall thickness control
- Q.38 Draw a neat and labeled sketch of automatic injection moulding machine defining both injection and clamping unit separately.

No. of Printed Pages : 4  
 Roll No. ....

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

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 Torpedo is used in which of following machine  
 a) Hand injection moulding machine  
 b) Reciprocating screw type injection mould machine  
 c) Compression moulding press  
 d) Transfer moulding machine
- Q.2 For which of following process dies are used.  
 a) Injection moulding    b) Extrusion  
 c) Rotational moulding    d) Compression moulding
- Q.3 Most common plastics material used in rotational moulding process is.  
 a) PVC                                      b) PP  
 c) PE                                        d) PS
- Q.4 Incorporate of Metal insert during injection moulding is \_\_\_\_\_.  
 a) Possible                                      b) Can't say  
 c) Not possible                                      d) None of these

- Q.5 Plastic which are molded and reheated again to change their shapes are :
- Thermoset
  - Thermoplastic
  - Elastomer
  - None of these
- Q.6 Purpose of Dehumidifier
- To melt material
  - To clean material
  - To remove moisture
  - All the above
- Q.7 The reason for short shot in injection moulding is \_\_\_\_\_.
- Insufficient charging of material
  - Low injection pressure
  - Low injection speed
  - All of these
- Q.8 Dimensional distortion in a plastic object after moulding is known as \_\_\_\_\_.
- Slippage
  - Flash
  - Warping
  - Leakage
- Q.9 Screen pack is used with which of following process
- Injection Moulding
  - Compression Moulding
  - Extrusion
  - Rotational Moulding
- Q.10 The time for which the material sits in barrel between cycles is called
- Residence Time
  - Down Time
  - Wait Time
  - Cycle Time

### Section-B

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

- Q.11 Define Day-Light of mould.
- Q.12 Give four defects of rotational moulding.
- Q.13 L/D stands for \_\_\_\_\_.
- Q.14 Injection moulding is a \_\_\_\_\_ (continuous/batch) process.
- Q.15 Give two applications of rotational moulding.
- Q.16 Define mould shrinkage.
- Q.17 What is blow up ratio?
- Q.18 Define pre-foam.
- Q.19 Suggest two remedies for excess flash.
- Q.20 Define Parison.
- Q.21 Name two important process variables for blow moulding.
- Q.22 Explain function of metering zone in IMM.

### Section-C

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

- Q.21 Discuss blow moulding of irregular shapes.
- Q.22 Explain application of rotational moulding.
- Q.23 Explain Extrusion blow moulding process.
- Q.24 Discuss the selection criteria for injection moulding machine.
- Q.25 Explain principle of rotational moulding.
- Q.26 Discuss troubleshooting of Injection moulding.