

Q.29 Define w.r.t. injection moulding machine

- a) Clamping tonnage
- b) Injection rate

Q.30 With a neat sketch, write any one method of venting in blow moulds.

Q.31 What is short shot give its causes and remedies.

Q.32 In which blow moulding process both moulds and dies are used. (T/F)

Q.33 What is pulverization of plastics materials. Give its two advantages.

Q.34 Define injection rate and injection pressure. How they affect each other.

Q.35 How cooling cycle is accomplished in rotomoulding process.

#### SECTION-D

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

Q.36 With a neat sketch and labelled diagarm, write the all steps involved in injection moulding of thermosets.

Q.37 What is parrison programming, what is its need , draw a neat sketch to for parrison programming.

Q.38 a) Can thermoset plastics materials be used in blow moulding. Justify your answer.  
b) Write the shut down procedure of injection moulding machine.

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

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

Q.1 The injection moulding machine is designed based upon which material

- a) PE
- b) PS
- c) PVC
- d) PMMA

Q.2 Which process gives stress free product.

- a) Injection moulding
- b) Compression moulding
- c) Blow moulding
- d) Rotational moulding

Q.3 Thermoset can be processed using

- a) Injection moulding process
- b) Compression moulding process
- c) Transfer moulding process
- d) All of above

Q.4 Reciprocating screw method uses

- a) Mould
- b) Die
- c) Both a & b
- d) None of above

Q.5 Blow moulding process is used to make

- a) Hollow product
- b) Solid product
- c) Both a & b
- d) None of above

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- Q.6 Which process is used to make foam insulated water tanks.  
 a) Injection moulding  
 b) Injection blow moulding  
 c) Rotomoulding  
 d) Extrusion blow moulding
- Q.7 PVC is  
 a) Thermally stable      b) Thermally unstable  
 c) Can't say              d) None of above
- Q.8 The screw L/D in injection moulding machine as compare to extruder is  
 a) High                      b) Low  
 c) can't say              d) None of above
- Q.9 Which of the following process can form irregular shaped hollow products.  
 a) Injection blow moulding  
 b) Extrusion blow moulding  
 c) Injection moulding  
 d) Rotomoulding
- Q.10 What is the Tg value of material to be used in rotomoulding.  
 a)  $\leq 1$                       b)  $\leq 2$   
 c)  $\leq 3$                       d)  $\leq 4$

### SECTION-B

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

- Q.11 Define plastics processing
- Q.12 Write a material which requires heated oil for cooling.
- Q.13 Expand the term EBM.

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- Q.14 Thermoset material can be used in blow moulding process.(T/F)
- Q.15 What is the function of band heaters in Injection moulding machine.
- Q.16 What is mould clamping.
- Q.17 Define barrel.
- Q.18 Foamed products can be made using rotomoulding process. (T/F)
- Q.19 Define nozzle.
- Q.20 Define thermoset material.

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions.  $(12 \times 5 = 60)$
- Q.21 Write down the start up procedure for injection moulding machine.
- Q.22 Define daylight of injection moulding machine. Give and define its types also.
- Q.23 Write reciprocating screw method of blow moulding Technique.
- Q.24 How will you calculate the charge required for a given product using rotomoulding technique.
- Q.25 Define shot weight and shot capacity.
- Q.26 Write rotating table method of extrusion blow moulding.
- Q.27 Do heated moulds are used to process thermoplastics materials in injection moulding process.
- Q.28 How will you control the wall thickness in the case of injection blow moulding process

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