

- Q.25 Define compression ratio of screw. Give compression of GP screw.
- Q.26 Write a note on twin screw extruder give the types also.
- Q.27 What is extrudate swell. How is it controlled.
- Q.28 Why machine maintenance is importance. Give four reasons.
- Q.29 With a neat sketch, write down the vented barrel extruder.
- Q.30 With a neat and labelled diagram write down the wire coating process.
- Q.31 With a neat and labelled sketch, write down the process of inverted L calendar.
- Q.32 Draw a sketch to show the effect of melt temperature on extruder output.
- Q.33 Give the electrical methods for heating calendar rolls.
- Q.34 Define stretch ratio and give its formula.
- Q.35 Give four significance of L/D ratio of screw.

#### SECTION-D

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

- Q.36 With a neat sketch, define screen pack and breaker plate, Give uses of each.
- Q.37 With a neat and labelled diagram. Write down the process of pipe extrusion.
- Q.38 With a neat and labelled diagram. Write down the technique of gravure printing.

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

182232

**3rd Sem.**

**Branch : Plastic Tech.**

**Sub: Plastic Processing Techniques – I**

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Injection moulding process is an example of
- Deformation of polymer melt
  - Deformation of polymer in rubbery state
  - Deformation of low M.W. polymer
  - Machining Technique
- Q.2 SSE stands for
- Soft screw extruder
  - Sharp screw extruder
  - Single screw extruder
  - Shark screw extruder
- Q.3 Which of following zone of screw is also called Transition Zone
- Feed Zone
  - Compression zone
  - Metering zone
  - Die zone

- Q.4 Bubble casing is a term used in  
 a) Extrusion Blow Moulding  
 b) Blow film process  
 c) Extrusion of filament  
 d) Extrusion of pipes
- Q.5 Which of the following is most commonly used material for making calendar rolls  
 a) Aluminium                      b) Bronze  
 c) Steel                                d) Wood
- Q.6 In Pad printing process the pads are commonly made with  
 a) PE                                      b) Epoxy Resins  
 c) Silicone rubber                  d) ABS
- Q.7 The MFI value of plastics material used in rotomoulding process is  
 a) £1                                      b) £2  
 c) £3                                      d) £4
- Q.8 Products made by mould are  
 a) 1D                                      b) 2D  
 c) 3D                                      d) 4D
- Q.9 Which material requires screw compression ratio of 4.5:1  
 a) PE                                      b) Nylon  
 c) ABS                                    d) PC
- Q.10 In term BUR, B stands for  
 a) Buffer                                  b) Bullet  
 c) Blow                                    d) Big

## SECTION-B

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

- Q.11 Define the term Painting.
- Q.12 Which materials is most commonly used in calendaring process.
- Q.13 Give difference between pipe and tube.
- Q.14 Expand the term TSE.
- Q.15 With one reason, write the requirement of machine maintenance.
- Q.16 Define Die.
- Q.17 Give a typical rpm ratio of major to minor axis in rotomoulding process.
- Q.18 Name the process in which nip rolls are used.
- Q.19 Which processing method is used to make bottles.
- Q.20 Expand the term BUR.

## SECTION-C

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

- Q.21 Write down the steps involved in pad printing process.
- Q.22 With a neat sketch write down the process of Z-type calendar.
- Q.23 Write down the steps involved in making plastics tubes.
- Q.24 Write down the two points with reasons which you will consider during installation of injection moulding machine.