

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA ENGINEERING – SEMESTER – IV • EXAMINATION – SUMMER- 2016**

**Subject Code: 3342304****Date: 24- 05- 2016****Subject Name: Plastics Extrusion Technology****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** Answer any seven out of ten. **14**
1. List parts of an extruder.
  2. List types of extruder machine.
  3. Write function of thrust bearing.
  4. Give examples of various extruded products.
  5. List various auxiliary equipments used in extrusion.
  6. Write function of screen pack.
  7. Write function of rotating die.
  8. State degree of Helix angle for a standard screw with reason.
  9. List types of barrel cooling systems.
  10. Define: Compression ratio.
- Q.2** (a) Compare Dry and Wet extrusion process. **07**
- OR
- (a) Give causes and remedies for any three defects in extruded products. **07**
- (b) Draw neat sketch of a standard extrusion screw showing its terminology. **07**
- OR
- (b) List various zones of standard screw and state function of each. **07**
- Q.3** (a) Explain automatic screen changer. **07**
- OR
- (a) List various process variables in extrusion and explain any three of them. **07**
- (b) Explain pipe manufacturing with line diagram. **07**
- OR
- (b) Explain wire coating process with line diagram. **07**
- Q.4** (a) State functions of breaker plate. **03**
- OR
- (a) Write steps for startup procedure. **03**
- (b) Give functions: (i) Barrel (ii) Thermocouple **04**
- OR
- (b) Give various specifications of an extruder machine. **04**
- (c) Explain manufacturing of blown film with line diagram. **07**
- Q.5** (a) Sketch constructional details of a single screw extruder and label its parts. **07**
- (b) Explain heating systems of barrel. **07**

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