

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2013****Subject Code: 162301****Date: 24-05-2013****Subject Name: Plastic Extrusion Technologies****Time: 10.30 am - 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.

- Q.1** (a) What are the types of Screw? With a neat sketch explain different parts of Screw. 07
- (b) Define the terms: 07
- (i) Helix angle (ii) Compression ratio (iii) L/D ratio (iv) Blow up ratio
(v) Lay Flat width (vi) Die swell (vii) Fibrillation
- Q.2** (a) What is tie layer . Explain the manufacturing & applications of Five layer films with suitable examples 07
- (b) Describe the manufacturing of HDPE pipes with line diagram 07
- OR**
- (b) Describe the manufacturing of Nylon Monofilaments with line diagram 07
- Q.3** (a) What are types of Reduction gear boxes 07
- (b) Compare between Single screw extruder and Twin screw extruder 07
- OR**
- Q.3** (a) Compare between Co rotating and Counter rotating Twin screw extruder 07
- (b) What are the different types of Drive systems of extruder 07
- Q.4** (a) Describe the manufacturing process of Raffia (Flat tape) 07
- (b) Describe about XLPE cable coating process 07
- OR**
- Q.4** (a) Describe the process of Lamination and its applications 07
- Q.4** (b) Describe the extrusion of Sheet and trouble shooting 07
- Q.5** (a) Write short notes on : (i) Hopper Cooling (ii) Manufacturing of BOPP 07
- (b) Explain about different Post extrusion equipments 07
- OR**
- Q.5** (a) Describe in detail about Reactive extrusion and its applications 07
- (b) Write short notes on : 07
- (i) Corona treatment
- (ii) Output of Single screw extruder
