

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– VI (New) EXAMINATION – WINTER 2019****Subject Code: 2163407****Date: 09/12/2019****Subject Name: Plastic Manufacturing Technology****Time: 02:30 PM TO 05:00 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) Define Plastics Processing Techniques and write down selection criteria for choosing a particular processing method? **03**
- (b) Explain Melting & Solidification behavior of polymer **04**
- (c) What are the process parameters merits and de-merits of Thermoset Injection moulding machine. **07**
- Q.2** (a) Define: 1) Shot Capacity, 2) Clamping Force, 3) Injection pressure **03**
- (b) Write down Cycle time process variables & its effects on moulding quality **04**
- (c) Explain Transfer Molding with merits and demerits **07**
- OR**
- (c) Explain Influence of process variables such as temperature, pressure, part size & configuration on quality and cycle time of Compression moulding **07**
- Q.3** (a) Write a short note on Plunger transfer moulding **03**
- (b) Differentiate between single screw extruder and Twin screw extruder **04**
- (c) Classify the types of screw used in extrusion and explain any one in details with neat sketch. **07**
- OR**
- Q.3** (a) Write a short note on screw transfer moulding **03**
- (b) Write down merit and de-merit of Twin screw extruder **04**
- (c) Classify the types of dies used in extrusion and explain any one in details with neat sketch. **07**
- Q.4** (a) Write a short note on Blown film **03**
- (b) Write short note on multilayer blow moulding process **04**
- (c) Write down the Trouble shooting in blow moulding with remedies **07**
- OR**
- Q.4** (a) Write a short note on Cast film **03**
- (b) Differentiate between extrusion blow moulding process & injection blow moulding process. **04**
- (c) Explain parison programming. **07**
- Q.5** (a) Classify the types blow moulding machine **03**
- (b) Discuss Matched die forming in detail **04**
- (c) Explain pressure forming process with neat sketch **07**
- OR**
- Q.5** (a) Write down design factors affecting blow mould product **03**
- (b) Discuss in drape Forming in detail **04**
- (c) Explain plug assist thermoforming process with Advantage, Disadvantage & applications. **07**
