

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2162308

Date:03/05/2018

Subject Name:Advance Plastics Processing

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.

Q.1 (a) Define the types of Calendar rolls arrangements used for making sheet. **03**

(b) Explain the advantages of rotational molding and processing factors affecting product quality. **04**

(c) Explain in details the material and process steps of Reaction Injection molding. **07**

Q.2 (a) State the difference between open cell and closed cell foam. **03**

(b) Differentiate between extrusion blow molding and injection blow molding techniques. **04**

(c) Write the possible cause and remedies of defects in calendaring process. **07**

OR

(c) Explain in detail about material, mould and process steps used in rotational molding process. **07**

Q.3 (a) Explain briefly about casting process. **03**

(b) Explain heating system for calendar rolls. **04**

(c) Explain parison programming for parison wall thickness control with neat sketch. **07**

OR

Q.3 (a) Discuss encapsulation process. **03**

(b) Write the procedure of startup and shutdown of blow molding machine. **04**

(c) Explain the rotogravure printing process for printing of plastics. **07**

Q.4 (a) Explain flexible and rigid foam with application. **03**

(b) List difference between rotomoulding and blow moulding **04**

(c) Discuss the process variable of injection blow molding and defects with cause and remedy for quality control. **07**

OR

- Q.4** (a) Give comparison of reaction injection molding with conventional injection molding. **03**
- (b) Write a note on: Speed and cooling effect on product quality in rotomoulding. **04**
- (c) Explain the general production methods for manufacturing foamed plastics with neat diagram and applications. **07**
- Q.5** (a) Write about electroplating. **03**
- (b) Write a note on: Parison Swell and In mold decoration technique for plastics. **04**
- (c) Explain the vacuum metalizing process with a neat sketch. **07**
- OR**
- Q.5** (a) What is adhesive bonding? **03**
- (b) List the various finishing techniques and explain any one. **04**
- (c) Explain the types of machinery used in rotomoulding. **07**
