

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – VI • EXAMINATION – SUMMER 2015

Subject Code:3362305**Date:14-05-2015****Subject Name: SECONDARY PROCESSING TECHNIQUES****Time: 10:30 AM TO 1:00 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. Define calendering. How it is different from extrusion process?
 2. State post calendering processes.
 3. Specify casting mold materials.
 4. State applications of encapsulation process.
 5. Define FRP and prepregs.
 6. Give applications of filament winding process.
 7. List types of resin use for vinyl dispersion.
 8. State foam applications in automobiles.
 9. List types of blowing agents.
 10. State types of FRP mold materials.
- Q.2** (a) List various raw materials and additives use for calendering process. **03**
OR
(a) Explain premixing process in brief. **03**
(b) State advantages of calendering process. **04**
OR
(b) List various calendar roll arrangement and explain any one. **04**
(c) Explain calendering process with neat sketch of calendering plant. **07**
OR
(c) Explain the working principle of banbury mixer. **07**
- Q.3** (a) List various materials and additives use for casting process. **03**
OR
(a) Sketch equipment for centrifugal casting process. **03**
(b) Explain casting process and state applications of it. **07**
OR
(b) Explain various process steps of encapsulation. **07**
(c) Explain plastisol preparation. **04**
OR
(c) Sketch knife coating process diagram and label different parts. **04**
- Q.4** (a) List various types of fibers use for FRP. Explain properties and applications of glass fibers and carbon fibers. **07**
OR
(a) List various FRP processes and explain pultrusion process. State applications of it. **07**

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| | (b) | List various vinyl dispersion methods and explain any one with neat sketch. | 07 |
| Q.5 | (a) | Explain preparation method of Dough Molding Compound. | 04 |
| | (b) | Explain general production methods of foams. | 07 |
| | (c) | State advantages of foam materials. | 03 |
