

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE SEM-VIII Examination May 2012****Subject code: 182304****Subject Name: Fiber Reinforced Plastics and Composites (D. E. - II)****Date: 08/05/2012****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) Define Reinforced Plastics. List the Resin & Reinforcing material used for making Reinforced Plastics. List the Application of Reinforced Plastics. **07**
- (b) List Advantages & Disadvantages of Reinforced Plastics. **07**
- Q.2** (a) List the factors to be considered while selecting resin and reinforcement. **07**
- (b) Discuss in detail about Release Agents used for FRP process. **07**
- OR**
- (b) What is Gel-Coat? Discuss about purpose & formulation of Gel-coats. **07**
- Q.3** (a) List the different types of Molds used for FRP. Explain about Plaster mold in detail. **07**
- (b) List the Causes & Remedies of the following faults: **07**  
(I) Wrinkle finish (II) Pin holing
- OR**
- Q.3** (a) List the material preparation Techniques for FRP. Explain premixes (BMC) in detail. **07**
- (b) Explain preparation of SMC with neat sketch. **07**
- Q.4** (a) Explain the curing Reaction of Unsaturated Polyester Resin. **07**
- (b) Discuss in brief about catalysts or initiators used for Unsaturated Polyester Resin. **07**
- OR**
- Q.4** (a) Discuss in detail about Accelerators used for polyester base FRP process. **07**
- (b) Explain Hand-lay up techniques with neat sketch. Also list advantages & disadvantages of the process. **07**
- Q.5** (a) Explain Resin Transfer Molding process with neat sketch. Also list advantages & disadvantages of the process. **07**
- (b) Short Note on: Vacuum Bag Molding **07**
- OR**
- Q.5** (a) Explain Pultrusion Process in detail. **07**
- (b) Explain Foam Reservoir Molding Process in detail. **07**

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