

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2013****Subject Code: 163403****Date: 28-05-2013****Subject Name: Advanced Manufacturing Processes****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) Explain the classification of advanced manufacturing processes. **07**
(b) Explain the Ultrasonic Machining with neat sketch. **07**
- Q.2** (a) Explain the dielectric system in EDM and mention its advantages. **07**
(b) Explain the Wire EDM process with neat sketch. **07**
- OR**
- (b) Discuss the various process parameters affecting EDM. **07**
- Q.3** (a) What is maskant? Explain the types with neat sketches. **07**
(b) Explain the ECG process with neat sketch. **07**
- OR**
- Q.3** (a) Explain the theory of ECM with Faraday's Laws of Electrolysis. **07**
(b) Explain the classification of deburring processes. **07**
- Q.4** (a) Explain the working principle of LBM process with neat sketch. **07**
(b) Write about the elements of Plasma arc cutting system with neat sketch. **07**
- OR**
- Q.4** (a) Explain the applications of LBM and PAM. **07**
(b) Discuss the process characteristics and applications of EBM. **07**
- Q.5** (a) Explain the CNC system components with neat sketch. **07**
(b) Explain the turning center construction with neat sketch. **07**
- OR**
- Q.5** (a) Explain the machining center construction with neat sketch. **07**
(b) Explain the steps involved in CNC programming with suitable example. **07**
