

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-III • EXAMINATION – SUMMER 2013****Subject Code: 133404****Date: 31-05-2013****Subject Name: Basic Manufacturing Processes****Time: 02.30 pm - 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) Explain the classification of manufacturing processes. **07**  
(b) Explain the lathe machine with neat sketch. **07**
- Q.2** (a) Explain the tumbler gear mechanism with neat sketch. **07**  
(b) Explain different taper turning methods with neat sketches. **07**
- OR**
- (b) Explain the types of planer and their applications with neat sketches. **07**
- Q.3** (a) What is a shaper? Explain the types with neat sketches. **07**  
(b) Explain any one shaper quick return mechanism with neat sketch. **07**
- OR**
- Q.3** (a) Explain the radial arm drilling machine with a neat sketch. **07**  
(b) Write about the work holding devices used in drilling machine with neat sketches. **07**
- Q.4** (a) Explain the types of milling cutters with neat sketches. **07**  
(b) Explain the gear cutting process in milling machine with neat sketch. **07**
- OR**
- Q.4** (a) Discuss the various milling machine operations with neat sketches. **07**  
(b) Explain Up and Down milling with neat sketches. **07**
- Q.5** (a) Explain the working of surface grinding machine with neat sketch. **07**  
(b) Discuss different methods of centreless grinding with neat sketches. **07**
- OR**
- Q.5** (a) Explain the standard marking system of grinding wheels with an example. **07**  
(b) Explain the common types of grinding wheels with suitable sketches. **07**

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