

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2132501****Date: 03-01-2015****Subject Name: Machining 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 Basic concepts of Machining and Classify Machine Tools. **07**
(b) Classify the Lathe machines. Explain parts of engine lathe with help of sketch. **07**
- Q.2** (a) Explain different taper turning methods with neat sketch. **07**
(b) Explain with neat sketch different operations performed on lathe machine. **07**
- OR**
- (b) Explain the turret indexing mechanism used in capstan lathe. **07**
- Q.3** (a) Describe various types of chucks used on lathe machine. **07**
(b) Explain various work holding devices of lathe machine. **07**
- OR**
- Q.3** (a) Explain the Material removal rate and time calculations for drilling machine. **07**
(b) Explain the various types of milling operations with neat sketch. **07**
- Q.4** (a) With the help of sketch explain Alignment test for drilling machine. **07**
(b) Classify the milling machines and explain the parts of column & knee type milling machine with neat sketch. **07**
- OR**
- Q.4** (a) Explain crank and slotted link quick return mechanism in a shaper. **07**
(b) Explain hydraulic shaper mechanism. **07**
- Q.5** (a) Explain the nomenclature of pull type broach. **07**
(b) Explain the Selection of grinding wheels and their conditioning. **07**
- OR**
- Q.5** (a) Write the merits, demerits and application of broaching. **07**
(b) Explain loading and mounting of grinding wheel. **07**
