

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

P.D.D.C. Sem - IV Examination June- 2011

Subject code: X41901

Subject Name: MANUFACTURING PROCESS-I

Date: 02/06/2011

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) Give the classification of basic machine tools. Explain primary cutting motion in machine tools. **07**
(b) Mention all types of work holding devices in lathe. Explain any three. **07**
- Q.2** (a) Explain taper turning operation by swiveling compound rest and by tailstock set over. **07**
(b) Explain construction and working of apron mechanism in lathe. **07**
- OR**
- (b) Draw a schematic diagram of Turret lathe, and mention different parts on it. Write advantages of turret lathe. **07**
- Q.3** (a) Draw sketch and give application of any four milling cutters **07**
(b) What is indexing? Explain plain indexing method. **07**
- OR**
- Q.3** (a) Give classification of drilling machines and draw a schematic diagram of radial drilling machine. **07**
(b) Describe in drilling: Counter boring, countersinking, spot facing, and trepanning **07**
- Q.4** (a) Explain construction and working of horizontal boring machine. **07**
(b) Explain construction of universal milling machine. **07**
- OR**
- Q.4** (a) Classify broaching machines and write operation and application of broaching. **07**
(b) Explain difference between turning, milling and broaching. **07**
- Q.5** (a) Differentiate shaper and planer base on principles, machine tool motion, job size, job orientation, operations and cutter mounting. **07**
(b) Explain construction of slotting machine and its working principle. **07**
- OR**
- Q.5** (a) Explain construction and working of centreless grinding machine. **07**
(b) Explain construction and working of band sawing machine. **07**
