

GUJARAT TECHNOLOGICAL UNIVERSITYPDDC - IVth Semester–Examination – May- 2012**Subject code: X41901****Subject Name: Manufacturing Process-I****Date: 08/05/2012****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 Primary and Auxiliary motions with reference to machine tools. **07**
(b) What are the differences between Engine Lathe and Turret Lathe. **07**

- Q.2** (a) Explain Turret Indexing Mechanism used in Capstan Lathe. **07**
(b) Explain Upmilling and Downmilling. List down the advantages of Upmilling. **07**

OR

- (b) Derive the Formula for Machining Time calculation for Milling. **07**

- Q.3** (a) Explain Working of Hydraulic Shaper With neat Sketch **07**
(b) Explain with Figure the Twist Drill Nomenclature. **07**

OR

- Q.3** (a) Explain the Nomenclature of Pull type Broach **07**
(b) List Down the advantages and Limitations of Broaching Operation. **07**

- Q.4** (a) Explain in Brief The different milling Machine attachments. **07**
(b) Explain Universal Milling Machine with neat sketch. **07**

OR

- Q.4** (a) Explain Spring winding, Spinning, Drilling and Tapping Operations on Lathe Machine **07**
(b) Suggest a Method of Taper Turning of Long Work Pieces and explain the Method. **07**

- Q.5** (a) Explain working of Vertical Turret Lathe. **07**
(b) Differentiate between Open side Planner and Standard Double Housing Planner. **07**

OR

- Q.5** (a) Explain the Standard Marking System for Grinding Wheels. **07**
(b) What is a mandrel? Explain Different types of Mandrels. **07**
