

GUJARAT TECHNOLOGICAL UNIVERSITY**DIPLOMA ENGG.- IIIrd SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 335501****Date: 28/05/2012****Subject Name: Mechanical Technology****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.
4. English version is considered to be Authentic

- Q.1** (a) Define the term 'machine tool' and give its classification. **07**
(b) Explain with neat sketch **07**
1. Chip formation
2. Mechanism of cutting
- Q.2** (a) Explain Need of attitude, knowledge & skill required for shop floor supervisor in machine tool industries **07**
(b) Explain any FIVE operations performed on a lathe with neat sketch **07**
OR
(b) Draw neat sketch and write specification of center lathe **07**
- Q.3** (a) Describe the lathe accessories and attachment with neat sketch. **07**
(b) Find the angle at which the compound rest of a lathe should Be set to turn taper on work piece having length of 50 MM, D = 50 mm and d = 40 mm **07**
OR
- Q.3** (a) Draw three views of single point cutting tool having signature 10-20-7-6-8-15-0.8 and show different angle. **07**
(b) Draw neat sketch of portable drilling machine and explain its use in fabrication industries **07**
- Q.4** (a) Draw neat sketch of shaping machine and label its parts **07**
(b) Write brief note milling machine and its types **07**
OR
- Q. 4** (a) Explain Truing, Dressing ,Loading, Glazing and Gumming of grinding wheel. **07**
(b) Explain specification system of grinding wheel as per BIS **07**
- Q.5** (a) Describe safety rules observed in 'FOUNDRY' **07**
(b) Explain different type of core with neat sketch **07**
OR
- Q.5** (a) Explain with neat sketch difference between forging, casting, machining **07**
(b) Explain Forging process. **07**
