

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER –III • EXAMINATION – SUMMER 2014

Subject Code: 335501**Date: 13/06/2014****Subject Name: Mechanical Technology****Time: 10:30 am – 1:00 pm****Total Marks: 70****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Each question carry equal marks (14 marks)

- Q.1** (a) Explain chips formation and different types of with neat sketch. **07**
(b) Draw neat sketch of lathe & write types of lathe **07**
- Q.2** (a) Compare 3 jaw and 4 jaw chuck with neat sketch **07**
(b) Explain offsetting of tail stock method with neat sketch **07**
- OR
- (b) Draw single point cutting tool geometry having tool signature 10-20-7-6-8-15-0.8 in A.S.A system. **07**
- Q.3** (a) Explain various safety considerations in lathe. **07**
(b) Draw block diagram of radial drilling machine and label its parts. **07**
- OR
- Q.3** (a) Explain working principle of shaper with neat sketch. **07**
(b) Draw neat sketch of horizontal milling machine and label its parts. **07**
- Q.4** (a) Explain different milling method with neat sketch **07**
(b) Explain marking system of grinding wheel in chart form **07**
- OR
- Q. 4** (a) Explain different steps involved in making a casting **07**
(b) Explain pattern allowance **07**
- Q.5** (a) Draw neat sketch of gating system and label its part. Explain function of gating system. **07**
(b) Explain merits of forging process compared with machining and casting with neat sketch **07**
- OR
- Q.5** (a) Explain spinning process with neat sketch. **07**
(b) Compare hot rolling and cold rolling process **07**
