

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – III • EXAMINATION – SUMMER 2016

Subject Code: 3335502

Date: 12/05/2016

Subject Name: MECHANICAL TECHNOLOGY

Time: 02:30 AM to 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. Use of programmable & Communication aids are strictly prohibited.
5. Use of only simple calculator is permitted in Mathematics.
6. English version is authentic.

- Q.1** (a) Explain chips formation and different types of chip with neat sketch. **07**
(b) Draw neat sketch of lathe, label its parts & write specification of lathe. **07**
- Q.2** (a) List different lathe accessories and explain any three with neat sketch. **07**
(b) Explain all geared head stock with neat sketch. **07**
- OR
- (b) Explain offsetting of tail stock method with neat sketch **07**
- Q.3** (a) Draw block diagram of radial drilling machine and label its parts. Write specification of it. **07**
(b) Explain working principle of shaper with neat sketch. **07**
- OR
- Q.3** (a) Draw twist drill geometry and label its parts. Write specification of twist drill geometry for steel & stainless steel material. **07**
(b) List different shaper operation. Explain any two with neat sketch. **07**
- Q.4** (a) Draw neat sketch of horizontal and vertical milling machine and label its parts. **07**
(b) Explain principle of grinding with neat sketch. **07**
- OR
- Q.4** (a) List different milling machine attachment and explain any two in brief. **07**
(b) Explain different types of abrasives and bond used in grinding wheel. **07**
- Q.5** (a) List different types of molding sands and explain characteristics of any two **07**
(b) Compare Hot Working & Cold Working Process. **07**
- OR
- Q.5** (a) Classify core. Explain any five types of cores with neat sketch. **07**
(b) Explain cold extrusion process with neat sketch **07**
