

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Engineering - SEMESTER – III • EXAMINATION – WINTER 2012

Subject code: 335501**Date: 02/01/2013****Subject Name: Mechanical Technology****Time: 02.30 pm - 05.00 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. English version is considered to be Authentic.

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| Q.1 | (a) List 14 major mechanical machine tools industries in GUJARAT in tabulated form | 07 |
| | (b) What is chip breaker? Explain function and types of chip breaker with neat sketch. | 07 |
| Q.2 | (a) Compare orthogonal and oblique cutting with neat sketch | 07 |
| | (b) List different types of drill tool. Explain any TWO with neat sketch | 07 |
| | OR | |
| | (b) Explain Whitworth quick return mechanism of shaper with neat sketch. | 07 |
| Q.3 | (a) Explain working principle of planner with neat sketch. | 07 |
| | (b) List different milling machine attachment and explain any two in brief | 07 |
| | OR | |
| Q.3 | (a) List different types of grinding machine and explain any one with neat sketch. | 07 |
| | (b) Explain grinding wheel hardness and grade & its effect in grinding | 07 |
| Q.4 | (a) Explain different steps involved in making a casting | 07 |
| | (b) Classify core. Explain any five types of cores with neat sketch. | 07 |
| | OR | |
| Q. 4 | (a) Explain advantages and application of metal casting | 07 |
| | (b) Draw neat sketch of mold and label its parts. List different types of mold | 07 |
| Q.5 | (a) Draw neat sketch of cupola and label its parts | 07 |
| | (b) Explain fettling and finishing of casting in brief | 07 |
| | OR | |
| Q.5 | (a) List different forging defects and explain any five with neat sketch | 07 |
| | (b) List different methods of extrusion process and explain any one with neat sketch. | 07 |
