| Seat No.: | |
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| No | |

GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-VII • EXAMINATION - SUMMER • 2015

| Subject Code: X71902. | | | Date: 12/05/2015 | |
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| \mathbf{T} | • | • | Total Marks: 70 | |
| | 1 2 | Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. | | |
| Q.1 | (a) (b) | Define the tool life and explain the factors affecting the tool life. Differentiate between single point cutting tool and multi-point cutting | tool. 0 | |
| Q.2 | (a) | Explain the 3-2-1 principle of location to restrict the movement of machining to have accuracy. | f job during 0 | 7 |
| | (b) | What is locating system? Explain different types of locators. | 0 | 7 |
| | (b) | OR What is Clamping System ? Explain it with fig. | 0 | 7 |
| Q.3 | (a) | What are the desirable characteristics of cutting fluids and cutting Too | l materials ? 0 | 7 |
| | (b) | How does Oblique cutting differ from orthogonal cutting? Discuss di of chips . | fferent types 0 | 7 |
| Q.3 | (a) | OR Differentiate between Jig and Fixture. Only sketch the different bushes. | types of jig 0 | 7 |
| | (b) | Compare Conventional & Non Conventional Machining. | 0 | 7 |
| Q.4 | (a) (b) | Compare Turret & Capstan lathes with An Engine Lathe. Explain briefly the working principle of USM process with neat sket its applications and limitations. | ch and state 0 | |
| Q.4 | (a) (b) | OR Differentiate between cast structure and fabricated structure of the market what is Press Tool? Explain Any three press tool operations. | chine tool. 0' | |
| Q.5 | (a) (b) | Describe different methods of gear Manufracturing with neat sketch. Explain the principle of full-proofing in Die block design with example | 0° | |
| Q.5 | (a) | OR State the gear finishing operations. Explain any Two with neat sketch. | 0 | 7 |
| | (b) | Calculate all machining particulars for milling a helical gear having 48 angle of 45 degrees & a module of 6 mm. | 3 teeth, helix 0 | 7 |
