

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VII • EXAMINATION – WINTER 2013

Subject Code: 172506**Date: 03-12-2013****Subject Name: Flexible Manufacturing Systems****Time: 10:30 TO 01:00****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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| Q.1 | (a) Justify the need of FMS in Today's Competitive Environment. | 07 |
| | (b) Explain General Layout, Benefits and Limitation of FMS. | 07 |
| Q.2 | (a) Explain hierarchy of CIM with respect to CIM technology. | 07 |
| | (b) Differentiate between Cellular and Flexible Manufacturing | 07 |
| | OR | |
| | (b) Explain Group Technology with suitable illustration. | 07 |
| Q.3 | (a) Explain pallet and part loading in Machining Centre. | 07 |
| | (b) Explain Automated Feature and Capabilities of Turning Centre. | 07 |
| | OR | |
| Q.3 | (a) Explain Automated Feature and Capabilities of Machining Centre. | 07 |
| | (b) Compare Horizontal and Vertical Machining Centre. | 07 |
| Q.4 | (a) Explain Wash Station with its operation description. | 07 |
| | (b) Explain Co-ordinate Measuring Machine with neat sketch. | 07 |
| | OR | |
| Q.4 | (a) Explain Deburring station with its operation description. | 07 |
| | (b) Explain AGV with its Guide path. | 07 |
| Q.5 | (a) Explain Basic component and benefits of AS/RS in FMS. | 07 |
| | (b) Write a short note on Tool Management. | 07 |
| | OR | |
| Q.5 | (a) Explain FMS Implementation with neat sketch. | 07 |
| | (b) Explain Queuing Carrousel and Automatic Work Changer. | 07 |
