

01005

**DIPLOMA IN
MECHANICAL ENGINEERING**

Term-End Examination

June, 2012

**BME-055 : COMPUTER INTEGRATED
MANUFACTURING**

Time : 2 hours

Maximum Marks : 70

Note : Attempt any seven questions.

All questions carry equal marks.

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|------------|---|---|
| 1. | Discuss the concept of CIM wheel. | 5 |
| AND | | |
| | What are the potential benefits of CIM ? | 5 |
| 2. | What do you mean by CAD, CAD/CAM and CIM ? | 7 |
| | What are the different types of CAM application ? | 3 |
| 3. | What do you mean by Inspection accuracy ? | 5 |
| | What are type I and type II errors ? | 5 |
| 4. | What is feedback process control ? | 4 |
| | Differentiate between on-line/in-process and on-line/post-process inspection methods. | 6 |

5. Describe the following types of AGVS control methods :
 - (a) Computer-Controlled System 6
 - (b) Remote Dispatch Control System 2
 - (c) Manual Control System 2

6. Discuss the following Robot Configuration :
 - (a) Cartesian Robot 3
 - (b) Cylindrical Robot 3
 - (c) Polar Robot 2
 - (d) Jointed Arm 2

7. Briefly explain about the components of AS/RS. 10

8. What are the various types of AS/RS ? Briefly explain the same. 10

9. What do you understand by FMS ? 4

Differentiate between dedicated and random order FMS. 6

10. What do you mean by Machine loading ? 4

What are the main objectives for machine loading ? 6