No. of Printed Pages : 2

BME-005

B.Tech. MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

Term-End Examination

00425 **December, 2014**

BME-005 : COMPUTER INTEGRATED MANUFACTURING

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any* ***five*** *questions. All questions carry equal marks.*

1. (a) Highlight at least ten benefits of CIM. 7

(b) With the help of a suitable sketch show the computerized element of CIM system. 7

2. (a) Differentiate between on-line in-process and on-line post-process inspection methods. 7

(b) Briefly explain about the components of AS/RS. 7

3. (a) Describe six elements of a CNC system. 7

(b) Describe the importance of program input device and list any three of them. 7

4. (a) Enlist and briefly explain seven different types of flexibility of manufacturing system. 7

(b) What are the different steps for Production Flow Analysis (PFA) ? 7

5. (a) Highlight the purpose of simulation. Enlist the elements of discrete event simulation. 7

(b) Briefly discuss the various steps in developing a simulation model. 7

6. (a) What is process planning ? Why does the need of CAPP arise ? 7

(b) Highlight some of the characteristics of agile manufacturing. 7

7. (a) Discuss in brief the three classes of simulation languages. 7

(b) What are the different components of a sensing system ? 7

8. (a) Describe the features of distributed data base management system. 7

(b) What will be the impact of future automated factory on labour ? Discuss with suitable examples. 7