

B.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Seventh Semester

MECHATRONICS ENGINEERING

MCT121: Computer Integrated Manufacturing

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. In production , the term _____ refers to the manufacturing operation that is performed on a work unit
 - a) Process
 - b) Product
 - c) Product development
 - d) Process Development
2. A _____ signal is sent from the controller to control the activities of the external devices and to coordinate their operations
 - a) Input interlock
 - b) Output interlock
 - c) Data interlock
 - d) Conditional interlock
3. A material transport equipment is classified into _____ categories
 - a) 4
 - b) 5
 - c) 3
 - d) 6
4. Machining is commonly performed on _____
 - a) Transfer Line
 - b) Production Line
 - c) Process Line
 - d) Product Line
5. The types of data contained in the inventory record are divided into _____ segments
 - a) 5
 - b) 4

PART C (5 x 14 = 70 Marks)

21. a) Describe in detail the various types of manufacturing system and computer controls.

(OR)

b) Briefly explain the DNC system integrated to CAD/CAM.

22. a) Describe the general procedure of Generative CAPP system and compare it with Variant approach.

(OR)

b) How can we form the part family and explain the OPTIZ and DCLASS coding system.

23. a) Write short notes on various materials handling equipment that are commonly found in a FMS.

(OR)

b) Explain three phases of shop floor control.

24. a) Explain the components of a Local Area Network and network topologies.

(OR)

b) Explain the CIMOSA model with a neat diagram and Describe product data management and its advantages.

25. a) With a neat sketch briefly explain about MAP/TOP.

(OR)

b) What is meant by Open system inter connection (OSI)? Explain briefly seven layers of the ISO / OSI reference model.
