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Question Paper Code : 81152

M.E. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Second Semester

CAD/CAM

CC 9222/ CC 922/ UED 9173/ 10222 CD 202 – INTEGRATED MANUFACTURING SYSTEMS

(Common to M.E. Engineering Design, M.E. Computer Aided Design and M.E. Product Design and Development)

(Regulation 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the difference between a processing operation and an assembly operation?
2. Draw the information – processing cycle in manufacturing firm.
3. What is meant by group technology?
4. What are the functions of CAPP?
5. What is meant by barcode technology?
6. What are all the advantages of shop floor control?
7. Define the integration of CAQC.
8. What is supervisory control?
9. Give any four applications of manufacturing systems.
10. What is Rapid prototyping?

PART B — (5 × 16 = 80 marks)

11. (a) What are the different types of Production? Discuss them in brief. Also discuss in detail about the manufacturing support system. (16)

Or

- (b) Write short note on
- (i) reasons for automating (8)
 - (ii) automation principles and strategies. (8)

12. (a) What are the part families? What are the different methods to form the part families? What are the different types of coding systems? Write in detail about the MICLASS coding system. (16)

Or

- (b) Explain the function of computer aided process planning with block diagram. (16)

13. (a) Describe in detail about MRP II and it's working. (16)

Or

- (b) What are different functions (phases) we perform for the shop floor control? Describe in detail. (16)

14. (a) Classify the automatic inspection techniques. Write about each type in detail with example. (16)

Or

- (b) Write short note on
- (i) Computer in quality control. (8)
 - (ii) Integration of CAQC with CAD/CAM. (8)

15. (a) What are the required considerations to be made for material handling system design? (16)

Or

- (b) Describe the function of Artificial Intelligence and Expert System (AI/ES) in CIM with neat sketch. (16)