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Question Paper Code : 11040

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Fifth Semester

Mechanical Engineering

080120024 — COMPUTER AIDED MANUFACTURING

(Regulation 2008)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the applications of Group Technology.

2. What is concurrent Engineering?

3. Classify the CNC Systems.

4. What are the functions of CNC controller?

5. List out various design considerations to be applied for CNC machines.

6. State the advantages of modular tooling systems.

7. What are the canned cycles and subroutines?

8. Mention the different statements used in APT.

9. What is the importance of process planning?

10. Mention the usage of relational database system.

PART B — (5 × 16 = 80 marks)

11. (a) Explain the Optiz parts classification and coding system with a neat block diagram.

Or

(b) Describe any one rapid prototyping technique with suitable examples.

12. (a) Explain the working principle of NC, CNC and DNC machines and also state their individual merits and demerits.

Or

(b) Explain the working of CNC interpolators with a suitable sketch.

13. (a) Explain the importance and constructional details of ball screws mechanisms in CNC machines.

Or

(b) Describe the usage and advantages of Automatic Tool changers and modular tooling set ups.

14. (a) Explain the computer assisted programming techniques in detail with suitable examples.

Or

(b) Discuss about the various features available in latest CAD/CAM software with reference to programming aspects.

15. (a) Compare the process planning with production planning. With a flow chart explain the Retrieval type CAPP system.

Or

(b) Broadly explain the role of DBMS in CAD/CAM systems and discuss about its applications.

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