6641
BOARD DIPLOMA EXAMINATION
JUNE - 2019
DIPLOMA IN MECHANICAL ENGINEERING
COMPUTER AIDED MANUFACTURING SYSTEMS
FIFTH SEMESTER EXAMINATION

Time: 3 Hours | **Total Marks: 80**

PART - A   (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. What is meant by part family?

2. Write any six advantages of NC systems over conventional machines.

3. Write down the functions of Computer in CNC machines.

4. Write a short note on anti-friction guide ways

5. List out types of tool magazine

6. Write the meaning following G codes
   a) G02 b) G71 c) G94

7. State the purpose of post processing in computer assisted part programming

8. State the requirements of material handling system

9. List out the components of FMS

10. List different modules of CIMS.

PART - B   (10m x 5 = 50m)

Note 1:Answer any five questions and each carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. Explain Group technology and its role in CAD/CAM integration

12. Discuss the features of Numerical Control systems in detail

13. Describe the features of CNC CMM with a neat sketch

14. Explain functioning of recalculating ball screw of CNC with neat sketch and write its advantages

15. Explain computer aided part programming

16. Explain the basic components of a Robot with a neat sketch.

17. Draw the lay out showing various components of FMS and explain the necessity of FMS

18. Explain the process of improving productivity in lean manufacturing system

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