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C09–M–**604**

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BOARD DIPLOMA EXAMINATION, (C–09)

MARCH/APRIL—2014

DME—SIXTH SEMESTER EXAMINATION

CAD/CAM

Time : 3 hours] [*Total Marks* : 80

PART—A 3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

1. Define CAD and write any two benefits of its usage.

2. Define CAM. State any two functions of CAM.

3. Write any three input and output devices of a CAD system.

4. Write any three advantages of NC systems over conventional machines.

5. Define numerical control.

6. What are the types of 'slideways' used in CNC machines?

7. What is meant by part program?

8. What is 'linear interpolation'?

9. State the advantages of FMS.

10. Write the advantages of CNC-CMM.

PART—B

10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

11. *(a)* Explain the working principle of CRT display device with a neat sketch.

(b) Write about a 'graphic workstation'.

12. *(a)* State the advantages of CAM.

(b) Write the features of material requirement planning (MRP-I).

13. Draw a layout of NC system. Explain each component.

14. Explain all the basic components of a CNC system with a block diagram.

15. Explain each word in the structure of NC part program in detail.

16. Write about *(a)* tool nose radius compensation and *(b)* subroutines.

17. List out the components of FMS and explain the functions of each component.

18. *(a)* Define the term 'Robot'.

(b) Write the classification and features of each type of Robot.

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