



*

C16-M-RAC-505

6641

BOARD DIPLOMA EXAMINATION, (C-16)

OCTOBER/NOVEMBER—2023

DME – FIFTH SEMESTER EXAMINATION

COMPUTER AIDED MANUFACTURING SYSTEMS

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define CAM.
2. List any six applications of NC system.
3. Define Direct Numerical Control.
4. What are guide ways? List any three types of guide ways used in CNC machines.
5. What is a tool magazine? List the different types of tool magazines.
- * 6. List the different types of statement used in APT programming.
7. What is circular interpolation? Write the codes used for circular interpolation.
8. List any six requirements of material handling systems used in CAMS.
9. List the different types of flexibilities in FMS.
10. List the advantages of CIMS.

/6641

1

[Contd...

*

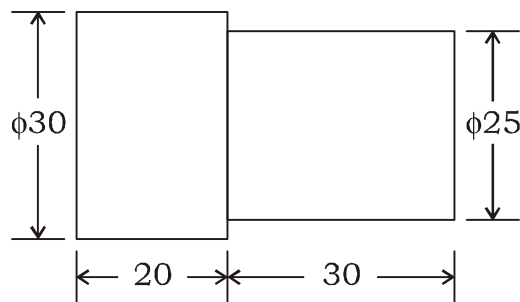
*

PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

- 11.** Explain the concept of integrated CAD/CAM.
- 12.** Explain the manufacturing methodology of NC system.
- 13.** Draw the block diagram of CNC system and explain the function of each component.
- 14.** Explain the working of ATC with a neat sketch.
- 15.** Write a part program for the following component with machining parameters of spindle speed 500 rpm, feed 100 mm/min and maximum depth of cut 1 mm. Size of raw material is 35 × 35 mm. All dimensions are in mm.



*

- 16.** Explain the various components of robot with a neat sketch.
- 17.** Explain the functions of various components of FMS.
- 18.** Explain the steps involved in lean manufacturing.

★ ★ ★

/6641

2

AA23(048)-PDF

*