

6641

BOARD DIPLOMA EXAMINATION, (C-16)

MAY/JUNE—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. State the functions of CAM.
2. Classify the modes of NC manufacturing systems.
3. State the features of CNC-CMM.
4. State the requirements of machine bed in CNC machine tool.
5. List out different types of slideways used in CNC machine.
6. Differentiate between manual part programming and computer aided part programming.
7. Write the general format of auxiliary statements used in APT language and give an example.
8. State the requirements of material handling system in CAMS environment.
9. Write about volume flexibility of FMS.
10. What is meant by module of a computer integrated manufacturing system?

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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. What is meant by group technology? State its role in CAD/CAM integration.
12. Draw NC machine tool and state the functions of each component.
13. Distinguish the features of NC, CNC and DNC.
14. Give the classification of feed drives used for CNC and explain them.
15. Write a part program on manual facing to reduce 25 mm dia 70 mm length rod into 25 mm dia 68 mm length.
16. (a) How do you classify robots?
(b) Draw a neat sketch of an industrial robot and show its parts.
17. Explain the functions of each component of FMS.
18. Explain the process of improving productivity in lean manufacturing system.

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