TED (15) 6024
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Reg. No……
Signature …….

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2022

CAD-CAM

[Maximum Marks: **100**] [Time: **3** Hours]

PART-A

I. (Answer ***all*** questions in one or two sentences. Each question carries ***2*** marks)

1. Define Computer Aided Design?
2. Define Local Area Network (LAN).
3. Describe Master Production Schedule (MPS).
4. Define numerical control.
5. Differentiate G98 and G99. (5 x 2 = 10)

PART-B

II. (Answer ***any five*** of the following questions. Each question carries ***6*** marks)

1. Write the advantages of workstation based CAD system than PC based CAD system.
2. List the advantages of CAPP.
3. Explain about 3D Printing.
4. Give an awareness about a turning center.
5. List the advantages of CNC.
6. Describe machine zero and work zero in CNC.
7. Explain open loop and closed control systems with diagrams. (5 x 6 = 30)

PART-C

(Answer ***one*** full question from each Unit. Each full question carries **15** marks)

UNIT – I

III. (a) With figure explain the working of CRT monitor. (9)

(b) List and describe types of CAD software. (6)

OR

IV. (a) Explain with figure any four LAN topology. (8)

(b) Write the advantages of CAD. (7)

UNIT – II

V. (a) Explain product development cycle with diagram. (9)

(b) Explain CAM. (6)

OR

VI. (a) Differentiate variant CAPP method and generative CAPP method. (8)

(b) Draw product life cycle graph and explain. (7)

UNIT- III

VII. (a) Explain the components of an NC system with neat diagram. (9)

(b) Classify CNC machining centers. (6)

OR

VIII. (a) Sketch and explain DNC setup. (8)

(b) Explain the machine axes conventions. (7)

UNIT - IV

IX. (a) Give an idea about interpolation with the aid of figure. (10)

(b) Differentiate between stepper motor and servo motor. (5)

OR

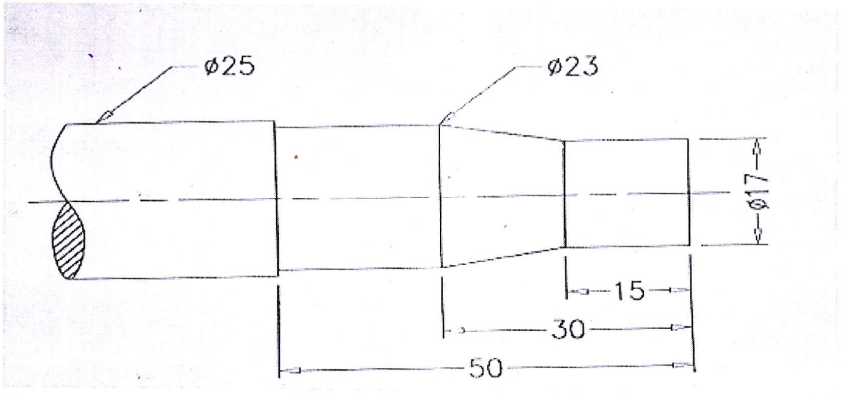
X. (a) Write a CNC part program for taper turning without any tool nose compensation.

(i) Raw material given = Aluminum rod 25mm dia and 90mm length.

(ii) Left face of the surface, z=0, axis of work, x=0

(iii) other data required may by suitably assumed.

(Explanation is to be provided or right side of each block of program) (15)



(All dimensions are in mm)

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