



C-16S-M-505

17310-1A-022

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BOARD DIPLOMA EXAMINATION, (C-16S)

NOVEMBER - 2019

DME - V 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.
  - (3) Answer should be brief and straight to the point.

- 1 What are the advantages of CAD ?
- 2 What is graphic work station ? Mention its components ?
- 3 Write any three benefits of CAM.
- 4 Differentiate between CNC and DNC.
- 5 What is machining centre ? List out the types of machining centres.
- 6 What are the advantages of using recirculating ball screws in CNC machines ?
- 7 What is an Automatic tool changer?
- 8 What is miscellaneous function ? Give any two examples.
- 9 What are the types of statements used in APT programming.
- 10 Write any four advantages of FMS.

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| Contd...

**PART - B**

10×5=50

**Instructions :**

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

- 11 Explain in detail various stages involved in the design of a component using CAD
- 12 What is MRP-II? Explain the benefits of MRP-II with help of block diagram
- 13 Draw the block diagram of a CNC machine and explain the function of each component. <http://www.sbtetonline.com>
- 14 Write notes on following :
  - (a) Slide ways.
  - (b) Feedback devices
- 15 Write short notes on the following with respect to CNC programming
  - (a) Canned cycle
  - (b) Tool nose radius compensation.
  - (c) Subroutines
- 16 Explain the steps involved in CNC part programming and also explain the structure of a block.
- 17 Describe the working of CMM with the help of a legible sketch.
- 18 What are the end effectors ? Explain them briefly with neat sketches