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**BOARD DIPLOMA EXAMINATION, (C-14)
MARCH /APRIL-2019
DME - SIXTH SEMESTER EXAMINATION
COMPUTER AIDED MANUFACTURING**

Time: 3 Hours]

[Max.Marks: 80

PART -A

10 x 3 = 30M

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

- 1) Define computer integrated production system.
- 2) Define materials requirement planning (MRP-II).
- 3) Define (a) NC (b) CNC.
- 4) List three advantages of recirculatory ball screw over conventional lead screw.
- 5) List three advantages of DNC.
- 6) What is a preparatory function? Give two examples. (1+2)
- 7) What is an interpolation ? List the types of interpolation. (1+2)
- 8) What are the components of FMS.
- 9) Write any three advantages of CIMS.
- 10) List six applications of industrial robots.

PART-B

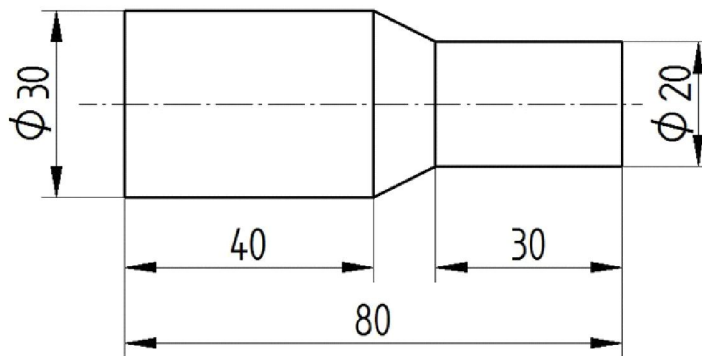
5X10=50M

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

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

3) Answers should be comprehensive and the criterion for valuation is the content but not length of the answer.

- 11) Explain the features of MRP-I with a neat block diagram. State its applications. (4+4+2)
- 12) Define CAM? Explain various functions and benefits of CAM. 2+4+4
- 13) Explain all basic components of NC system with a neat block diagram.
- 14) Explain briefly about (a) Encoders and (b) Working of tool magazine.
- 15) Explain the types of statements used in APT programming in detail.
- 16) Write part program for the component shown in the figure. All dimensions are in mm.



Work material: Mild steel; Work size = Diameter 32 mm and length = 85 mm; speed= 820 r.p.m; feed=200 mm/min. Depth of cut = 2 mm.

- 17) Explain the main features of Coordinate Measuring Machine with a neat sketch.
- 18) Explain the features of different types of Robots.

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