



C14-M-604

**4760**

**BOARD DIPLOMA EXAMINATION, (C-14)**

**MARCH/APRIL—2018**

**DME—SIXTH SEMESTER EXAMINATION**

**COMPUTER-AIDED MANUFACTURING**

*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. What are the advantages of CAM?
2. Define (a) MRP-I and (b) MRP-II.
3. Draw the layout of NC system.
4. What are slide ways? List out the types of slide ways used in NC machines.
5. Write the specifications of a CNC turning centre.
6. Write a short note on subroutine.
7. What is a miscellaneous function? Give two examples.
8. Define (a) CIMS and (b) FMS.
9. Write any three advantages of CNC-CMM.
10. What is an artificial intelligence?

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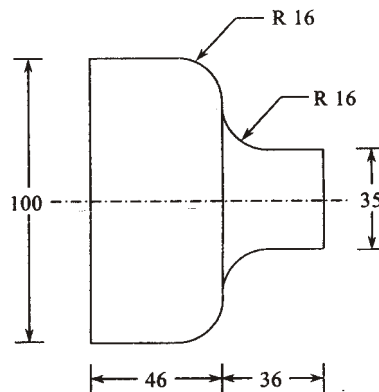
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**PART—B**

10×5=50

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

- 11.** Explain integrated CAD/CAM concept.
- 12.** (a) What is a computer-integrated production system?  
(b) What are the features and advantages of a computer-integrated production system?
- 13.** (a) Describe the working of recirculatory ball screw used in NC machines.  
(b) Differentiate between NC and CNC.
- 14.** What are the types of statements used in APT programming? Explain in detail.
- 15.** Explain the manufacturing methodology on NC system.
- 16.** Write a part program for the profile given by using G-codes and M-codes assuming suitable data (all dimensions are in mm) :



- 17.** Explain the features of CIMS.
- 18.** Explain the basic components of robot with a neat sketch.

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