

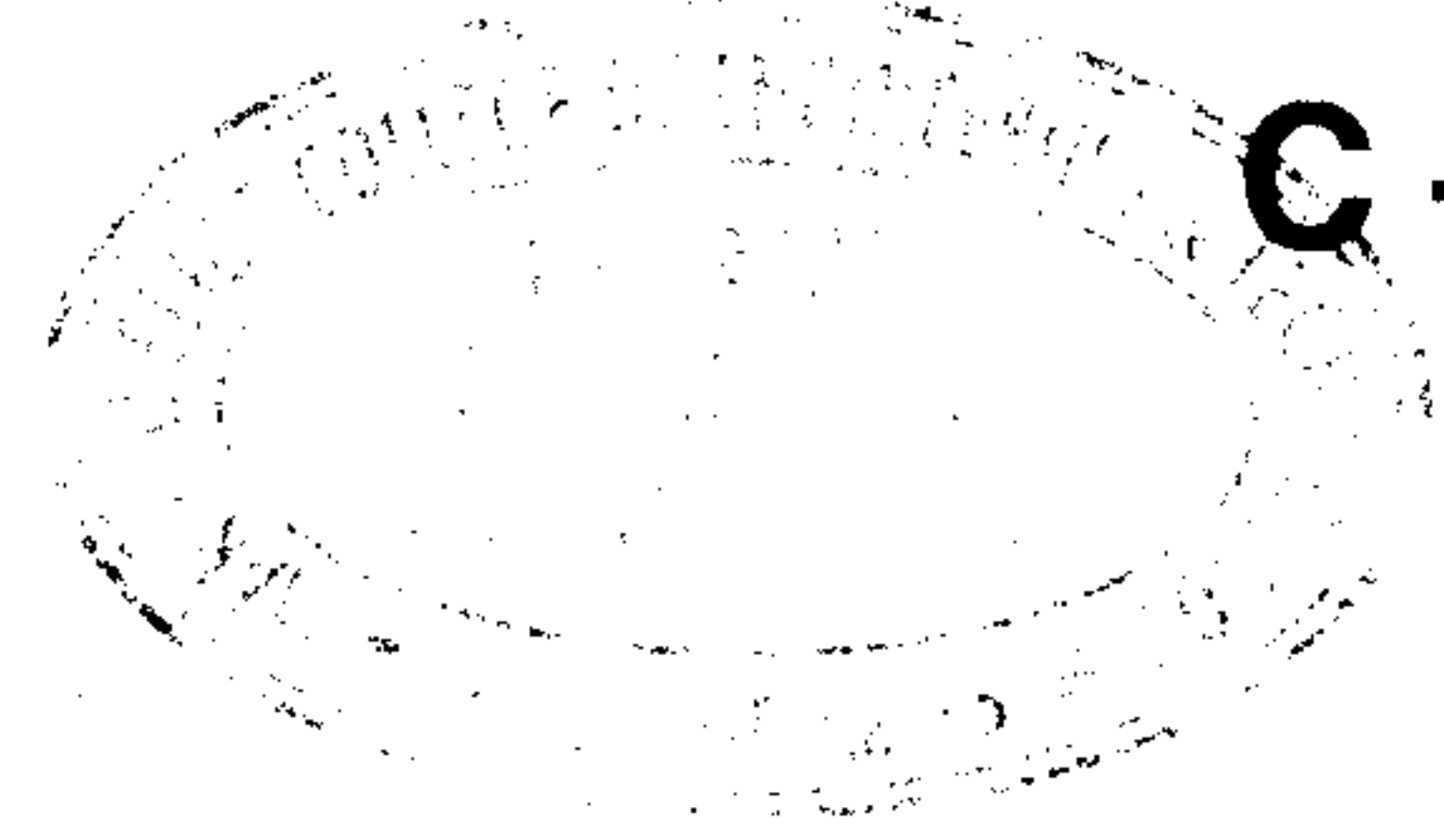


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C – 2361

Reg. No. : .....

Name : .....



**Eighth Semester B.Tech. Degree Examination, May 2017  
(2013 Scheme)**

**13.804 : COMPUTER INTEGRATED MANUFACTURING (MU)**

Time : 3 Hours

Max. Marks : 100

**Instructions:** 1) Answer *all* questions in Part A.

2) Answer *any one full* question from *each* Module in Part B.

**PART – A**

1. Briefly explain any two elements of the CIM system.
2. Differentiate between CIM and FMS.
3. Mention the role of RDBMS in CIM.
4. Give the reasons for adopting group technology in an industry.
5. What is production flow analysis ?
6. Discuss briefly process planning activities.
7. Explain different types of CNC systems.
8. Write notes on canned cycle.
9. In what ways a robot differ from a NC machine tool ?
10. What are the objectives of AS/RS ?

**(10×2=20 Marks)**

**PART – B**

**Module – I**

11. a) Draw and explain the CIM physical data configuration. **10**  
b) How would you describe the principle of computer aided manufacturing to an older worker in a manufacturing facility who is not familiar with computers. **10**
12. a) What are the CIM related standards ? Explain briefly. **10**  
b) Explain the various activities of CIM. **10**

P.T.O.

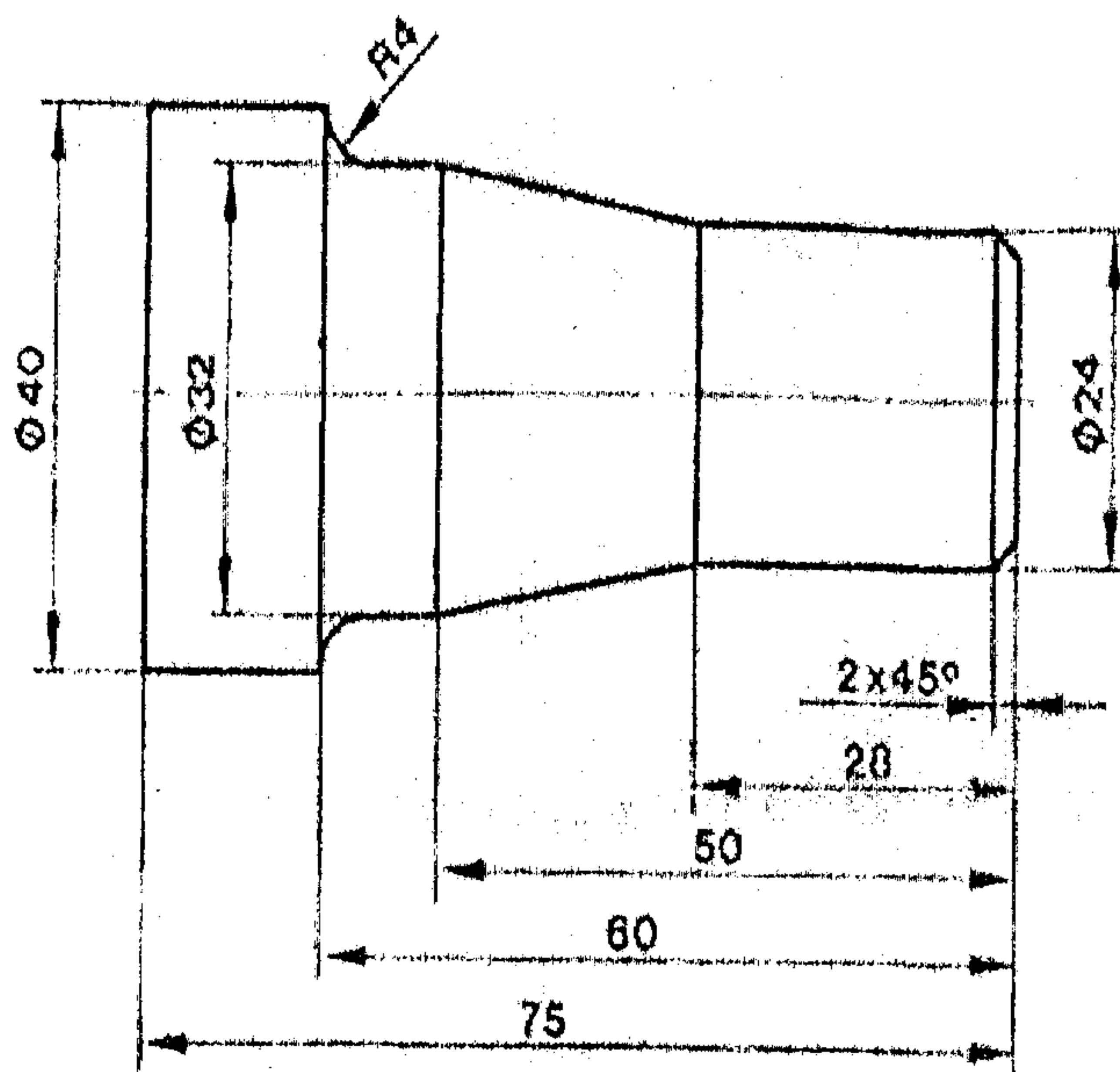


### Module - II

13. a) What is a coding system structure ? Explain the parts classification and coding system. 10
- b) Discuss the various implementation techniques for CAPP. 10
14. a) Explain the role of process planning in CAD/CAM integration. 10
- b) Discuss the various benefits of implementing GT in a firm. Also bring out the limitations of using group technology. 10

### Module - III

15. a) Describe the constructional features of CNC machine tools. 10
- b) Explain the four types of statements used in the APT language with examples. 10
16. a) Explain the various drive systems used in CNC machine tools. Compare AC and DC systems. 10
- b) Prepare a manual part program for the part shown in the figure. All dimensions are in millimetre. 10



### Module - IV

17. a) Flexibility is not the only essential ingredient for flexible manufacturing system. Explain. How is an FMS optimized ? 10
- b) Explain briefly the various stages of MRP and its implementation in CIM environment. 10
18. a) Explain the various types of automated storage and retrieval systems. 10
- b) Describe the operation of machine vision system in an industry. 10