

Enrollment No: \_\_\_\_\_

Exam Seat No: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Summer Examination-2018

Subject Name : Computer Integrated Manufacturing

Subject Code : 5TE02CIM1

Branch: M.Tech (Mechanical) (CAD/CAM)

Semester : 2

Date: 27/04/2018

Time: 10:30 To 01:30

Marks: 70

Instructions:

- (1) Question 1 and 4 are compulsory.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

### Section- I

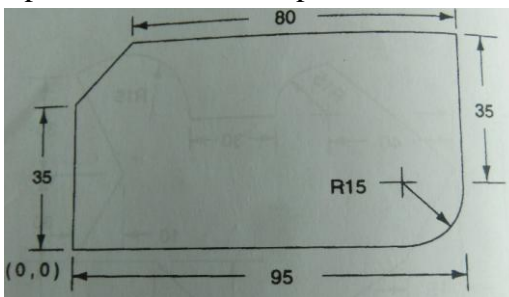
Q-1

Attempt the following questions:

- a) Explain the term: Punched Tape Readers. 2
- b) Define the term: Feed Function. 2
- c) What stands for M05 and M06? 1
- d) What stands for X0.4 in this CNC lathe machine information? 1  
X-0.4 Z-30.00 K 1.5 EOB
- e) Give the full form of ATC. 1

Q-2

- a) Draw and discuss the CIM wheel in detail with necessary sketch. 7
- b) Write a part program for component shown in Figure with cutter radius compensation and direction of cut programmed in anti clock wise direction. Assume suitable data if needed. Z = 0 is at the top surface of the workpiece. All dimensions are in mm. 7

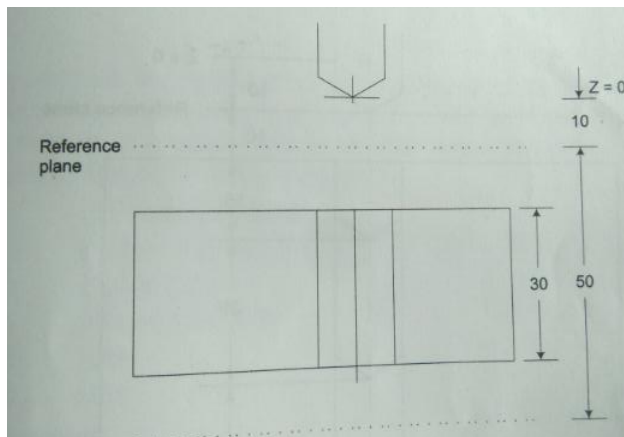


OR

Q-2

- a) Write a short note on Hierarchical Database. 7
- b) Write part program for workpiece shown in figure below. All dimensions are in mm. 7





- Q-3** a) What are the database requirements of CIM? 7  
 b) Write a short note on Product Data Management (PDM). 7  
 OR  
**Q-3** a) Discuss with neat sketch the Siemens model of CIM. 7  
 b) Discuss with neat sketch Asynchronous Transfer Mode (ATM) Networks. 7

### Section- II

- Q-4** **Attempt the following questions:**  
 a) What is Ethernet switch? 2  
 b) Draw only the model of dynamic enterprise. 2  
 c) What is DRO? 1  
 d) What is OSA-CIM? 1  
 e) What is Group Technology? 1
- Q-5** a) Compare and contrast FMC and FMS. 7  
 b) Define AS/RS. Discuss different types of AS/RS used in FMS. 7  
 OR  
**Q-5** a) Explain in detail the automated features and capabilities of turning centre. 7  
 b) Classify AGV on the basis of different guide ways. Explain any one of them in detail. 7
- Q-6** a) Write a short note on OPTIZ coding system used in group technology. 7  
 b) Explain the DML commands with their application. 7  
 OR  
**Q-6** a) What are the different category benefits of CIM? 7  
 b) Explain the DDL commands with their application. 7

