

Printed pages: 3	EAU701
(Following paper code and roll No. to be filled in your answer book)	
Paper code: 147701	Roll No. <input type="text"/>

- Draw configuration diagram of DNC system and give the function of each component.
- Explain coordinate system used in CNC.
- Define CIM and list four benefits of CIM.

Q.2 Attempt any FOUR of the following (5*4 marks)

- Explain the constructive solid geometry (CSG) technique used in solid modelling.
- Explain the procedure to generate a cylinder placed on top of a rectangular block using any CAD software.
- Draw the product cycle in CAD/CAM environment.
- State with the help of an example the APT statements to generate points and lines.
- What is group technology? Discuss machine cell design in group technology?

Q.4 Attempt any TWO of the following (10*2 marks)

- Discuss briefly sweep representation giving basic elements and building operation with examples?
- Define surface entities and derives the parametric equations of the four analytical surface models?
- Describe part classification and coding used in group technology?

Q.5 Attempt any TWO of the following (10*2 marks)

- Explain the use of DO loops in NC part programming with the help of a suitable example.
- Find the transformed coordinates when a square [(1,1), (2,1), (1,2) & (2,2)] which is scaled for
 - Uniform scaling with a factor of 2 in XY plane?
 - Non uniform scaling with a factor of a 1.0 and 1.5 in X and Y directions, while anchoring point (1, 1)?

B TECH
(SEM VII) THEORY EXAMINATION 2014-15
COMPUTER AIDED DESIGN & MANUFACTURING

TIME: 3 Hours

Total Marks: 100

- Note: (i) Attempt all the questions. Each question Carry equal marks.
(ii) Follow the guidelines and be precise in your answer.
(iii). Assume suitable value for missing data.

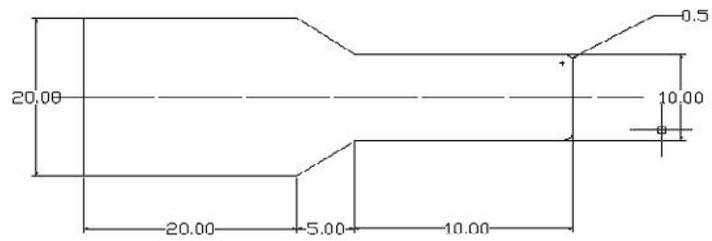
Q.1 Attempt any FOUR of the following (5*4 marks)

- Describe the light pen input device used in CAD.
- Draw the wire frame model and solid model of a rectangular block.
- Differentiate between manual and automatic inspection.
- List six NC words used in part programming.
- What are the NC motion control systems? Describe any one of them.

Q.2 Attempt any FOUR of the following (5*4 marks)

- List the six storage devices used in CAD/CAM.
- Draw the block diagram of the basic structure of CAD/CAM system with its meaning.

- c. Write an NC part program for the following part.
The raw material size is 25X40 mm long.



ALL DIM. ARE IN MM.