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**B TECH**  
**(SEM-VII) THEORY EXAMINATION 2020-21**  
**CAD/CAM**

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

1. Attempt all questions in brief.

2 x 7 = 14

a.	
b.	
c.	
d.	
e.	
f.	
g.	

**SECTION B**

2. Attempt any three of the following:

7 x 3 = 21

a.	
b.	
c.	the limitations of DDA algorithms?
d.	operations in CSG?
e.	Write their transformation also.

**SECTION C**

3. Attempt any one part of the following:

7 x 1 = 7

(a)	What is the basic principle of Rapid prototyping? Explain the general features of rapid prototyping techniques with examples.
(b)	What are NC machine tools? Discuss features, basic components, and co-ordinate system of NC machine tools.

4. Attempt any one part of the following:

7 x 1 = 7

(a)	B(40,40) by 60° clockwise. Find out the transformed coordinates.
(b)	graphics package. What do you understand by the Blobby Objects?

5. Attempt any one part of the following:

7 x 1 = 7

(a)	What is FEM? Writes its general procedure in engineering design. Also write the applications of FEM.
(b)	Define Beizer curve with suitable example and diagram. State its properties, merits and demerits.

6. Attempt any one part of the following:

7 x 1 = 7

(a)	Define robotics. Explains the laws that guide the Robots. How are robots classified?
(b)	Explain the importance of Adaptive control in machining operations. Also discuss various part classification and coding system used in GT.

7. Attempt any one part of the following:

7 x 1 = 7

(a)	What is CAPP and discuss the benefits of CAPP. Discuss various types of CAPP systems.
(b)	Discuss the types of manufacturing systems in CIMS. Also discuss various types of layout considerations of FMS.