

Roll No. ....

**3207**

**B. Tech. 5th Semester (ME)  
Examination – March, 2021**

**COMPUTER AIDED DESIGN & MANUFACTURING**

Paper : PCC-ME-301-G

*Time : Three hours ]*

*[ Maximum Marks : 75*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* question in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

1. (a) Define CAD.
- (b) Name the components of design process.
- (c) What is Sweep representation ?
- (d) Write concept of direct digital manufacturing.
- (e) What is CAPP ?

is solid modeling ?

2.5 × 6 = 15

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**UNIT – I**

2. (a) Write the applications of CAD. 8
- (b) What are the requirement of CAD in terms of Hardware and Software ? 7
3. What is Additive manufacturing ? Discuss about various applications of additive manufacturing. 15

**UNIT – II**

4. Differentiate between Bezier curves and B-splines curves in detail. 15
5. Write about :
  - (a) Surface of revolution 8
  - (b) Cell decomposition 7

**UNIT – III**

6. Explain the concept of Finite Element Analysis and Finite Element Modeling. 15
7. Write about :
  - (a) Photo polymerization processes 8
  - (b) Extrusion based systems 7

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## UNIT – IV

8. Define FMS, its components and types in detail. 15
9. Write about :
- (a) Steps in variant process planning. 8
  - (b) Conventional process planning. 7
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