

Roll No.

Total Pages : 2

013601

May, 2023

**B.Tech. (Mechanical Engineering) VI Semester
CAD/CAM (PCC-ME-601-21)**

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

1. (a) What is limitation of manual drafting? (1.5)
- (b) What is the main use of Auto CAD software in Industries? (1.5)
- (c) What is Industry 4.0? (1.5)
- (d) What is Cloud Manufacturing? (1.5)
- (e) What is Artificial Intelligence? (1.5)
- (f) Name any *two* CAD softwares. (1.5)
- (g) What is 2d drafting? (1.5)

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- (h) What is Reverse Engineering? (1.5)
- (i) What is benefit of Layers in AutoCAD? (1.5)
- (j) What is the use of Robots in industries? (1.5)

PART-B

2. Explain the benefits of Computer Aided Design over manual designing. Mention the process of Concatenation in CAD. (15)
 3. Explain need and scope of CAE/FEA simulation and testing with live examples. (15)
 4. Explain the components and working of a FMS with Layout diagrams. (15)
 5. Explain the parts and working of a CNC machine. Compare NC, CNC and DNC Systems. (15)
 6. Explain the various 3D Solid Modeling techniques in CAD with applications. (15)
 7. Illustrate the Advantages, Uses and sensors used in Robots of with examples. (15)
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