

**B. Tech. 7th Semester (AUE) F. Scheme Examination,
December-2017**

COMPUTERAIDED DESIGN

Paper-ME-402-F/AUE-411-F

Time allowed : 3 hours] [Maximum marks : 100

*Note : Attempt any five questions from eight questions.
At least one question from each section. Question
No. 1 is compulsory.*

1. (a) Name the component of design process. 2×10=20
- (b) Define FMS.
- (c) What is ruled surface ?
- (d) What is ATC and its application ?
- (e) What do you mean by local-co-ordinate system ?
- (f) Define CAD.
- (g) What is Bezier curve ?
- (h) What are blending functions ?
- (i) Define G02, G90 CNC codes.
- (j) What is sweep-representation ?

Section-A

2. What do you understand by computer-aided design ?
Discuss reasons for implement CAD in industry ? 20
3. (a) Define rotation, reflection and scaling for 3D
Cartesian coordinates. 10
- (b) Reflect the point (1, 5) about the line $y = 5x + 10$.
10

Section-B

4. (a) Draw Bezier curve with the help of control points (1, 1), (10, 5), (10, -5) and (15, 10). 10
- (b) What are the basic characteristics of curve, explain? 10
5. (a) Differentiate between constructive solid geometry (CSG) and boundary representation. (B-rep). 10
- (b) Explain the concept of B-Spline surface. 10

Section-C

6. Discuss the concept of constructive solid geometry, sweep representation. 20
7. Explain the Construction and working of CNC machines. 20

Section-D

8. What is group technology ? Explain part classification and write various coding system. Why group technology is developed ? Write its advantages. 20
9. Explain the concept of Conventional process planning, and discuss the different types of CAPP. 20