PVP 14

Code: ME5T6

III B.Tech - I Semester – Regular/Supplementary Examinations
March - 2021

CAD/CAM
(MECHANICAL ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) What is a digitizer?

b) Explain Raster scan display.

c) Explain Product cycle.

d) The order of the cubic spline is?

e) List solid modeling primitives.

f) What G Codes and M Codes represent?

g) What is an FMS?

h) Explain CAQC?

i) What are the objectives of CAQC?

j) How does CIM integrate all activities of industry?

k) In CIM, what are the activities required for manufacturing engineering ?

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) What are the input devices most commonly employed for general graphics applications? Explain them in detail. 8 M

   b) Explain the details of polygon clipping. Give the details of method used for line clipping. 8 M

3. a) Solve the equation of a Bezier curve which is defined by four control points as (80,30,0), (100,100,0),(200,100,0) and (250,30,0). 8 M

   b) What are the basic commands in drafting? Explain the use of any five commands with examples. 8 M

4. a) How are NC machines classified? Explain them with suitable sketches. 8 M

   b) What is Production Flow Analysis? Discuss the various steps involved in PFA. 8 M

5. a) Sketch and explain various types of CMM's. 8 M

   b) Differentiate between QC inspection and QC testing. 8 M

6. a) Discuss the various network topologies used in CIM. Explain their relative advantages and disadvantages. 8 M

b) Describe the role of human workers in the future automated factory. 8 M