

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2018 - 19 Examination

Semester: 1
Subject Code: 203219101
Subject Name: Computer Graphics and Application in Design

Date: 10/12/2018
Time: 10:30 am to 1:00 pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 A) Distinguish between Conventional Design and Computer Aided Design system with CAD architecture. (05)

B) Discuss the properties of Bezier curve. (05)

C) Write a short note on Reverse Engineering. (05)

Q.2 Answer the following questions. (Attempt any three) (Each five mark) (15)

A) Explain Constructive Solid Geometry in detail with suitable example.

B) Plot Bresenham's algorithm for line with starting point (2, 2) & end point (7, 4).

C) Discuss the benefits and reasons for implementing CAD.

D) Discuss the functions of Geometric modeling .

Q.3 A) What is the need of Graphics Standards for Computer Aided Design? Explain any one in detail. (07)

B) ΔABC having vertices A(2, 3) , B(6, 3) and C(4, 8) is reflected about a line $y=3x+4$. Find the coordinates for reflected triangle. (08)

OR

B) The coordinates of four control points relative to a curve is given by P1(2,2) P2(2,3) P3(3, 3) and P4(3,2). Find the coordinate pixels for $u= 0, 0.25, 0.5, 0.75, 1$. Also plot the Bezier curve on graph. (08)

Q.4 A) Discuss Feature based modeling in brief with suitable example. (07)

OR

A) Enlist the modify commands used in parametric software with their function and neat sketch. (07)

B) Discuss in detail about Production drawing limits, fits and tolerance. (08)