PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech. Winter 2019 - 20 Examination

Semester: 1   **Date: 16/12/2019**
Subject Code: 203219101   **Time: 10:30am to 1:00pm**
Subject Name: Computer Graphics & Application in Design   **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) Explain Product Cycle CAD-CAM with neat sketch.   **(05)**
       B) What is graphic standard? Explain different CAD Standard.   **(05)**
       C) Explain Random scan display with neat sketch.
                                                                                          (05)

Q.2 **Answer the following questions**. (Attempt any three) (Each five mark)   **(15)**
       A) Explain 2D geometric transformations with neat sketch.
       B) Explain Direct view storage tube (DVST) with neat sketch.
       C) Explain Reverse Engineering concept with industrial application.
       D) Generate a straight line connecting two points (1, 2) and (8, 6) using DDA Algorithm.

Q.3 A) Explain Bresenham's algorithm for generation of line with flow chart.   **(07)**
       B) Explain wire frame modeling and surface modeling with neat sketch   **(08)**
                                          OR
       B) A rectangle is formed by four points whose coordinates are A (50, 50), B (100, 50), C (100, 80),
          and D (50, 80). Determine the coordinates of four points new rectangle in reduced size using the
          scaling factors 0.5 and 0.6 along X and Y- directions respectively.   **(08)**

Q.4 A) Write 3D transformation for Translation, Rotation, Scaling and Reflection with neat sketch. **(07)**
                                          OR
       A) Explain feature based parametric modeling with neat sketch.   **(07)**
       B) Explain Geometric dimensioning and tolerance with example.   **(08)**