Enrolment No._____

HASMUKH GOSWAMI COLLEGE OF ENGINEERING, VAHELAL
MID SEMESTER EXAMINATION, SEPTEMBER-2016
Subject Code: 2151603   **Date: 27/09/2016**
Subject Name: Computer Graphics   **Sem: 5ᵀᴴ**
Time: 10:00 TO 10:50   **Total Marks: 20**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

QUE.1   **(A)** Write the short note on: **3**

          (1.)   DVST

          (2.)   Plasma Panel

          (3.)   LCD

    (B) Implement the DDA algorithm to draw a line from (0, 0) to (6,6).   **3**

QUE.2   **(A)** What are the different methods of character generation?   **3**

    (B) Show the composition of two scaling is multiplicative by concatenating the matrix   **4**
representation for [S(sx2,sy2).S(sx1,sy1)=S(sx1.sx2,sy1.sy2)]

<div align="center">OR</div>

    (B) Translate the square ABCD whose co-ordinate are A(0,0),B(3,0),C(3,3) and D(0,3)   **4**
by 2 units in both directions and then scale it by 1.5 units in x-direction and 0.5
units in y-direction.

QUE.3   **(A)** What is shearing transformation? Explain with example.   **3**
    (B) Show the three transformation matrices used to rotate a figure 90^0 anti-clockwise   **4**
about (3, 3). Also generate the transformation matrix.

<div align="center">OR</div>

    (A) What do you understand by homogenous co-ordinate?   **3**
    (B) What are the basic transformations? Describe each with their matrix representation.   **4**

***************************** **ALL THE BEST** *****************************