

Roll No



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING  
MID TERM EXAMINATION - APR 2023**

**Semester :** Semester VI -2020

**Course Code :** CSE2066

**Course Name :** Sem VI - CSE2066 - Computer Graphics

**Program :** CAI,CBD,CEI,CSG,CST

**Date :** 17-APR-2023

**Time :** 9:30AM - 11AM

**Max Marks :** 60

**Weightage :** 30%

**Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

**PART A**

**ANSWER ALL THE QUESTIONS**

**(5 X 2 = 10M)**

1. Mention few applications of Computer Graphics.  
(CO1) [Knowledge]
2. Mention few examples of Computer Graphics Packages.  
(CO1) [Knowledge]
3. Define aspect ratio for an image and a screen.  
(CO1) [Knowledge]
4. List few of the input, output and display devices that are used in Computer Graphics systems.  
(CO2) [Knowledge]
5. Define persistence of a pixel and its types.  
(CO2) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**(4 X 5 = 20M)**

6. Apply rotation to a triangle ABC by an angle 90 degree anti clockwise about a point(-1,1), where the triangle has the coordinates A(5,0),B(10,2) and C(7,4).  
(CO1) [Comprehension]
7. Explain Beam Penetration Vs Shadow Mask Technique for color display.  
(CO1) [Comprehension]
8. Given a circle C with radius 10 and center coordinates (1, 4). Apply the translation with distance 5 towards X axis and 1 towards Y axis. Obtain the new coordinates of C without changing its radius.  
(CO2) [Comprehension]

9. Explain the working principle of Cathode Ray Tube (CRT) with a diagram.

(CO2) [Comprehension]

### PART C

#### ANSWER ALL THE QUESTIONS

(2 X 15 = 30M)

10. Illustrate Mid-point Circle drawing algorithm. Using the algorithm generate all the points to form a circle whose center point coordinates at (0, 0) and radius as 10.

(CO1) [Application]

11. Illustrate Digital Differential Analyzer line drawing algorithm. Using the algorithm Digitize the line with endpoints (5, 6), (13, 10) and draw the line.

(CO2) [Application]