

# C.U.SHAH UNIVERSITY

## Summer Examination-2019

**Subject Name: Computer Graphics**

**Subject Code: 4TE06CGR1**

**Branch: B.Tech (CE)**

**Semester: 6**

**Date: 16/04/2019**

**Time: 10:30 To 01:30**

**Marks: 70**

**Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

<b>Q-1</b>	<b>Attempt the following questions:</b>	<b>(14)</b>
	a) What is Digitizer?	1
	b) What is Aliasing?	1
	c) What is Scaling?	1
	d) What is Look Up table?	1
	e) What is Flat Panel Display?	1
	f) What is plotter?	1
	g) What is shearing?	1
	h) What is reflection?	1
	i) What is line clipping?	1
	j) What is translation?	1
	k) What is data glove?	1
	l) What is ambient light?	1
	m) Explain getpixel() function.	1
	n) What is Joy Stick?	1

**Attempt any four questions from Q-2 to Q-8**

<b>Q-2</b>	<b>Attempt all questions</b>	<b>(14)</b>
	a) Explain Line Printer and Dot Matrix Printer.	4
	b) What is refresh rate? How does refresh rate affects picture quality? Explain.	3
	c) What is character generation? Explain a character generation method with example.	7
<b>Q-3</b>	<b>Attempt all questions</b>	<b>(14)</b>
	a) Explain Midpoint Ellipse drawing Algorithm with its advantages and disadvantages.	7
	b) Explain Cohen Sutherland Line Clipping algorithm with its limitations.	7
<b>Q-4</b>	<b>Attempt all questions</b>	<b>(14)</b>
	(a) What is polygon clipping? Explain Weiler Arthton Algorithm for polygon clipping with suitable example.	7



- (b) Compare raster scan and random scan display. 4
- (c) List and explain applications of Computer Graphics. 3
- Q-5**            **Attempt all questions**            **(14)**
- a) Explain Digital Differential Analyzer algorithm with its advantages and disadvantages. 7
- b) What is transformation in Computer Graphics? Explain Window to View port transformation with suitable example. 7
- Q-6**            **Attempt all questions**            **(14)**
- a) What is Parallel Projection? Explain types of Parallel Projection in detail. 7
- b) Explain CIE diagram with its usefulness. 7
- Q-7**            **Attempt all questions**            **(14)**
- a) Explain flood filling algorithm and boundary filling algorithm with advantages. 7
- b) What is Cathode Ray Tube? Explain its working. 7
- Q-8**            **Attempt all questions**            **(14)**
- a) What is anti-aliasing? How does anti-aliasing affect the resolution? List out advantages and disadvantages of anti-aliasing. 7
- b) What is a color model? Explain YIQ and CMY color models. 7

