SUBJECT CODE:- 83 FACULTY OF ENGINEERING AND TECHNOLOGY S.E. (CSE/IT) Examination Nov/Dec 2015 Computer Graphics (Revised)

		(Revised)	
[Time: Three Hours] [s: 80]
N.B		"Please check whether you have got the right question paper." i) Q.No.1 from and Q.No.6 are compulsory. ii) Attempt any two questions from Q.No. 2 to Q.no.5 and any two questions Question No. 7 to Q N Section-A	lo.10
Q1. Q.2	a)	Attempt Any Fivei.What is scan conversion?ii.Enlist any four uses of computer graphics applicationsiii.What do you mean by logical input devices?iv.Name the techniques for producing color display with CRTv.Differentiate between emissive and non -emissive display.vi.Write types of clippingvii.What is animation?viii.What is aspect ratio?Explain different input modes with suitable diagram	10
	b)	Write an Open 4L program to implement event driven input using keyboard	08
Q.3	b) a) b)	Explain polygon basics and different types of polygons in open GL How Color is handled in RGB color model? Explain the use of indexed color for setting color attribute	08 08 07
Q.4	a)	How display list is generated? Give suitable example.	08
	b)	With a neat block diagram, explain working of raster display	07
Q.5	a)	 Write Open GL code to draw the following primitives Line-loop Polygon 	08
	b)	Explain synthetic camera model for imaging system	07
		Section -B	
Q.6		Attempt any five	10

How to draw lines using Open GL?

What is diffuse reflectivity?

Define pivot point for rotation

Differentiate between window port and view port

What is need of homogeneous co-ordinates?

i.

ii.

iii.

iv.

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- vi. What is illumination model?
- vii. What is Aliasing?
- viii. Explain glOrtho2Dc) function

Q.7	a)	Use Bresenhams line drawing algorithm to rasterize the line with end points (2,3) and (12,8)	08
	b)	Explain in detail basic transformations	07
Q.8	a)	Explain back face detection method and depth buffer method	08
	b)	Distinguish between Gouraud and phong shading methods	07
Q.9	a)	Consider on object ABC with co-ordinates	08

- A (1,1)
- B (10,1)
- C (5,5)

Rotate the object by 90° in counter clockwise direction and give co-ordinates of transformed object.

b)	List differences between parallel and perspective projection along with their Open GL functions	07
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07

08

- Q.10 a) What is line clipping? Explain cohen-Sutherland line clipping algorithm with suitable example.
 - b) Define following terms
 - i. Vanishing point
 - ii. Classical viewing
 - iii. Lambertian surface
 - iv. Axonometric projection