

RR-3793

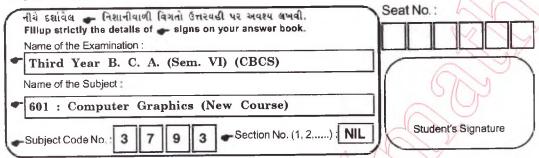
Third Year B. C. A. (Sem. VI) (CBCS) Examination January - 2017

601 : Computer Graphics
(New Course)

Time: 3 Hours]

[Total Marks: 70

Instruction:



1 Answer the following in short (any Seven)

14

- (1) Define resolution.
- (2) List advantages and disadvantages of LCD.
- (3) Explain major axis of ellipse.
- (4) State the advantage of winding number method over even odd method.
- (5) Explain slope of a line segment.
- (6) Give matrix to get reflection about the line y = x and y = x.
- (7) Give the transformation matrix used to move an object from its original place. Explain with an example.

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- (8) Explain how to reduce an aliasing effect.
- (9) Define pixel.

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2	Answer following questions in detail:	14
	(a) Write note on Application of computer graphics.	. 8
	(b) Write note on Graphics standards.	6
	OR	4
	(b) Compare Vector Vs Raster Graphics.	6
3	Answer following in detail	14
	(a) Explain BRESENHAM's line drawing algorithm.	8
	OR O	
	(a) Explain line geometry.	8
	(b) Explain thick line joints and line caps.	6
4	Write notes on: (any two)	14
	(a) Flood Fill Method	
	(b) Even-Odd Inside Test	
	(c) Polygon Pattern Filling.	
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5	Do as directed:	14
	(a) Explain Scaling Transformation.	6
	OR	
	(a) Explain Shearing Transformation.	_
	(b) Attempt the following with example: (any two)	8
	(i) Derive single matrix for following operation	
	(a) shift image 4-units left	
	(b) make the entire object three times as lar	_
	(ii) Give a single matrix to scale an object	
	x direction to be one half as large and then rota	ate
	counter clockwise by 90°. (iii) Give a single matrix to translate an object translate	nto
	(iii) Give a single matrix to translate an object translate down 2 units and right 3 units and then rotated the control of the	
11	clockwise by $\Pi/4$.	a ce
7	CIUCAWISE Dy 11/4.	
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