

[Time:2.30 Hrs]		[ Marks:75 ]
Please check whether you have got the right question paper.		
N.B:	1. All question are compulsory. 2. Figures to the right indicate full marks. 3. Draw diagrams where required.	

Q.1	Attempt <b><u>any three</u></b> of the following:  a. Consider a line AB with A (2, 3) and B (8, 9). Apply DDA algorithm and calculate pixels on this line. b. Explain Sutherland-Hodgeman polygon clipping algorithm. c. List and explain any five applications of computer graphics. d. Differentiate between raster scan display and random scan display. e. Explain Bresenham's line drawing algorithm. f. Differentiate between CRT and LCD.	15
Q.2	Attempt <b><u>any three</u></b> of the following:  a. Explain Multiview projection. b. Explain translation transformation with an example. c. Explain rotation about an arbitrary point. d. Explain 3D reflection. e. Explain window to viewport transformation. f. Given a point K (2, 3). Apply 2D scaling about y-axis.	15
Q.3	Attempt <b><u>any three</u></b> of the following:  a. Explain different coordinate systems. b. Explain canonical view volume (CVV). c. Explain CMYK color model. d. Write a short note on applications of colorimetry. e. Write a short note on radiometry. f. Write a short note on photometry.	15
Q.4	Attempt <b><u>any three</u></b> of the following:  a. Explain scan line polygon fill algorithm. b. Explain Painter's algorithm. c. Explain techniques for efficient visible-surface algorithm. d. Explain parametric representation of circle. e. Explain properties of a B-spline curve. f. Define curve. What are its types? Explain.	15

Q.5

Attempt **any three** of the following:

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a. Write a short note on deformation.

b. Write a short note on procedural animation.

c. What is image? Explain types of image.

d. Explain any five principles of animation.

e. Explain the process of contrast stretching.

f. A 16 level image is given. Prepare the histogram of the image.

10	15	12	12	3
14	14	12	3	3
10	7	8	9	8
10	7	7	7	15
14	12	12	14	15