U.G. 5th Semester Examination - 2020

BCA

Course Code : BBCADSHC1 [DSE1]

Course Title : Computer Graphics

Full Marks : 30 Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **ten** questions: 1×10=10

a) What is viewing transformation?

b) Mention two basic rules for animation.

c) What is attribute parameter?

d) Mention the function of a flood gun.

e) Define translation vector.

f) Write down two names for line clipping algorithm.

g) Define dithering.

h) What are the disadvantages of plasma display?

i) What is interactive computer graphics?

j) What is topological distortion?

k) What is Rasterization?

l) What is the value range of red colour in RGB colour model?

m) Write the two techniques for producing color displays with a CRT.

n) Define morphing.

o) What is meant by scan code?

2. Answer any **five**: 2×5=10

a) Discuss Beam penetration and shadow masking in CRT display.

b) Define clipping and clip window.

c) Differentiate between window port and viewport.

d) Explain scaling.

e) Define hyper text and multimedia.

f) What is computer graphics?

g) What is Bezier curve? How do you define the degree of Bezier curve?

h) Find the initial decision parameter (using Bresenham's line drawing algorithm) for a straight line with end points (20,10) and (30,18).

3. Answer any **two**: 5×2=10

a) i) Derive the transformation matrix to reflect any point about the line y=15 (use 2D transformation).

ii) Define point clipping. 4+1

b) Write down different applications of multimedia. What is twinning? 3+2

c) In high graphics gaming why low poly models are more preferred than the poly models? How vector and raster graphics differ? 2+3

———————