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Total No. of Questions : 09]

[Total No. of Pages : 02

B. Tech. (Sem. - 5th)

COMPUTER GRAPHICS

SUBJECT CODE : CS - 309

Paper ID : [A0468]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

Q1) *(10 × 2 = 20)*

a) What is scan conversion?

b) List the different types of clippings.

c) What do you understand by the term surface rendering?

d) What is Z-Buffer?

e) Define the term rendering?

f) What is translation of an object?

g) What is a perspective view?

h) Define the term rotation in three dimensions.

i) Define the various I/O devices.

j) What do you mean by fractals?

Section - B

(4 × 5 = 20)

Q2) List all the applications of computer graphics.

Q3) Describe in detail Breshenham's line drawing algorithm.

Q4) Define the term object precision. How it is different from image precision?

Q5) What are windowing and clipping? Explain Sutherland-Hodgman algorithms for clipping a polygon.

Q6) What are projections? Explain different types of projections.

Section - C

(2 × 10 = 20)

Q7) Explain the scan line method for visible surface detection.

Q8) Explain in detail any of the two Bezier and B-Spline curves.

Q9) What do you mean by raster scan systems? Explain the working of a color CRT monitors.