

Section - D

(1 × 10 = 10)

Q7) What is Z-buffer algorithm? Discuss its principle. Explain various advantages and disadvantages of it.

Q8) What are various surface shading methods? Explain relative merits and demerits of each surface shading methods.

Section - E

Q9) (10 × 2 = 20)

- What is aspect ratio?
- What are various applications of computer graphics?
- What is meant by resolution?
- What are the techniques for scan conversion?
- What is a composite transformation?
- What is Cartesian coordinates?
- What is meant by term Viewing?
- What is meant by term Surface Rendering?
- What is meant by refracted light in shading?
- Explain the working principle of half toning.

☆☆☆

R-974

2

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

MCA (Sem. - 5th)

COMPUTER GRAPHICS

SUBJECT CODE : MCA - 501

Paper ID : [B0122]

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

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- Attempt any One question from Sections - A, B, C & D.
- Section - E is **Compulsory**.
- Use of non - programmable **Scientific Calculator** is allowed.

Section - A

(1 × 10 = 10)

Q1) What is video display device? What are its different types? Explain advantages and disadvantages of each video display device.

Q2) Explain the following :

- Types of Scanner.
- graphics tablets

Section - B

(1 × 10 = 10)

Q3) What is transformation? Explain scaling, reflection and shearing in 2-D graphics by taking suitable examples.

Q4) Define line. Write and explain Bresenham's line drawing algorithm.

Section - C

(1 × 10 = 10)

Q5) Compare and contrast parallel projection and perspective projections with appropriate examples.

Q6) How rotation of an object about its origin and about its center is performed in 3D graphics? Explain.

R-974

P.T.O.