Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

M.Sc.(IT) (2015 Onwards) (Sem.–3)

COMPUTER GRAPHICS

Subject Code : MSIT-301

M.Code : 74066

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

Q1 Differentiate random and raster scan systems in detail. 10

Q2 Explain the following :

(a) Flat panel display 5

(b) RGB and CMYK color models 5

SECTION-B

Q3 What is scan conversion? Write and explain DDA algorithm for a line. 10

Q4 Define circle. Write and explain mid-point algorithm to draw a circle. 10

SECTION-C

Q5 What is the significance of geometric transformations? Explain the procedure to rotate on object about X and Y axis. 10

Q6 What is clipping. Write and explain Cohen Sutherland algorithm for line clipping. 10

SECTION-D

Q7 Discuss the significance and working principle of Gouraud and Phong shading methods. 10

Q8 Explain the following :

(a) Working of Painter's algorithm 5

(b) Use of Dithering techniques in graphics 5

SECTION-E

Q9 a) Write any two applications of computer graphics.

b) Define lookup table.

c) What is interactive computer graphics?

d) Define persistence.

e) What is use of flood fill techniques?

f) Define orthographic projection.

g) What is use of morphing?

h) Define diffuse reflection.

i) What is use of digitizer in computer graphics?

j) What is role of coordinate systems?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.