

Total No. of Questions : 8] [Total No. of Printed Pages : 2

www.rgpvonline.com Roll No.....

MCA-403

M.C.A. IV Semester

Examination, June 2017

Computer Graphics And Multimedia

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions  
ii) All questions carry equal marks.

1. Explain Bresenham's line drawing algorithm with example?
2. State Bresenham's circle Algorithm and illustrate the algorithm with example. State merits of the algorithm?
3. A triangle having the vertex at A(0, 0), B(5, 5) and (10, 4). Find the transformation matrix for rotation of 45° about origin.
4. Differentiate between Flood fill and boundary fill algorithms. Apply the stack based seed fill algorithm to fill the polygon defined by the vertices (1, 1), (1, 4), (3, 6), (8, 6) and (8, 1). The seed pixel is at (4, 3) and polygon in boundary filled.
5. Write down Sutherland -Cohen line cutting algorithm. Is this applicable to any of the window?
6. Write short note on Mach-band effect in shading models?
7. Explain 3D rotation about x, y and z axis and write the corresponding transformation matrices?

MCA-403

PTO

8. Answer any four of the following.

- a) Write the principal of DDA algorithms.
- b) Explain Antialiasing techniques.
- c) Which clipping algorithm is best suited for hardware implementation? Why? www.rgpvonline.com
- d) Write the properties of Bezier curves?
- e) Write any five file formats for multimedia system?
- f) Explain the SCSI.

\*\*\*\*\*

www.rgpvonline.com

MCA-403

www.rgpvonline.com

www.rgpvonline.com

www.rgpvonline.com

www.rgpvonline.com

www.rgpvonline.com

www.rgpvonline.com