

Register Number:

MCA DEGREE EXAMINATIONS: APRIL/MAY 2014

(Regulation 2014)

Third Semester

MASTER OF COMPUTER APPLICATIONS

MCA513: Computer Graphics & Multimedia Systems

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

1. What is scan conversion?
2. Write the two techniques for producing color displays with a CRT?
3. What is transformation?
4. What any two properties of Bezier Curve?
5. Define Projection.
6. Distinguish between a window port & a view port?
7. List out the building blocks of multimedia.
8. What is MIDI?
9. Mention the few application areas of multimedia.
10. Write any two audio and video file formats.

PART B (5 x 16 = 80 Marks)

11. a) (i) Explain how lines can be generated using DDA line drawing algorithm (8)
- (ii) Explain how Bresenham line drawing algorithm is differ in DDA line drawing algorithm. (8)

(OR)

- b) Write short notes on any four color models.

12. a) Briefly explain the Liang Barsky line clipping algorithm with an example.

(OR)

- b) Explain how Translation, Scaling, Rotation, Reflection & Shearing are performed in two dimension objects.

13. a) Explain the following visible surface detection methods with neat diagram.
a) Back-Face Detection b)Depth-Buffer Method c)A-Buffer Method

(OR)

- b) (i) Explain in detail the parallel projection. (8)
- (ii) Discuss about the perspective projection. (8)

14. a) Explain briefly on the hardware and software components of multimedia.

(OR)

- b) Explain in detail about the computer based animation technique.

15. a) Discuss about a) video conferencing b) virtual reality c) video on demand
d) interactive video

(OR)

- b) Briefly explain the multimedia database systems with their characteristics.
