M 27792

Reg. No. : ....

Name : ....

II Semester M.C.A. Degree (Reg./Sup./Imp.) Examination, July 2015
(2014 Admn.)
MCA 2C12 : COMPUTER GRAPHICS

Time : 3 Hours   Max. Marks : 80

SECTION – A

Answer **any ten** questions. **Each** question carries **three** marks.

1. Define pixel and resolution.

2. List out the three input mode interfaces to open the Graphics Library.

3. What are the various areas of applications of computer graphics ?

4. Mention the RGB color model in the computer graphics.

5. Differentiate between flood-fill and boundary fill.

6. What is point clipping ?

7. What is the need for 2D and 3D transformation ?

8. What are the merits and demerits of bitmap images and vector images ?

9. What are the limitations imposed by the use of the depth buffer ?

10. Differentiate between geometric transformations and coordinate transformation.

11. Compare and contrast quadric and super quadric surfaces.

12. What are the classification of different visible surface detection methods ?

(10×3=30)

P.T.O.

SECTION – B

Answer **all** questions. **Each** question carries **ten** marks.

13. a) With suitable diagram explain the working of random scan color monitor.

    OR

    b) Describe emissive and non-emissive flat panel display systems (one each).

14. a) Write the DDA line drawing algorithm and trace the same on the line with end points (2, 1) and (– 5, 8).

    OR

    b) Discuss the event driven programming for pointing devices in open GL.

15. a) Explain the two dimensional transformation with respect to region filling algorithms.

    OR

    b) Explain 2D window-to-view port coordinate transformation.

16. a) Explain the depth-buffer algorithm for hidden surface removal.

    OR

    b) Describe the geometric data table representation for polygon surface with suitable example.

17. a) Discuss parallel projection method for projecting the 3D-objects onto the 2D view plane.

    OR

    b) Explain the two important basic illumination methods features briefly. **(5×10=50)**