Reg. No.: ....

Name : ....

III Semester M.C.A. Degree (C.B.S.S. – Regular) Examination, November 2021
(2020 Admission)
MCA3 C03 : COMPUTER GRAPHICS WITH OPENGL

Time : 3 Hours   Max. Marks : 60

SECTION – A

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

1. State any four features of OpenGL.

2. Explain pixel addressing and object geometry.

3. What is the Fill-Area attributes ?

4. Explain point clipping and line clipping.

5. What is 2D composite transformation ?

6. Give metrics representation for 3D rotation.

7. What is windowing ?

8. Give a short description on co-ordinate system.

9. What is surface lighting effect ?

10. Write a short note on blobby objects.

SECTION – B

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

11. a) Describe circle generating algorithm.

               OR

     b) List some of the promising application of OpenGL.

12. a) Explain general scan line algorithm.

    OR

    b) Illustrate Cohen-Sutherland algorithm.

13. a) Explain 3D geometric transformation.

    OR

    b) Explain Raster method for geometric transformation.

14. a) Discuss 3D viewing pipeline.

    OR

    b) Explain various perspective projection methods.

15. a) Explain anyone visible surface detection methods.

    OR

    b) Briefly discuss different polygon rendering methods.

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