K25P 3323

Reg. No. : .....

Name : .....

III Semester M.C.A. Degree (C. B. S. S. – Reg./Supple./Imp.) Examination, November 2025
(2022 Admission Onwards)
MCA3C03 : COMPUTER GRAPHICS WITH OPEN GL

Time : 3 Hours Max. Marks : 60

SECTION – A

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

1. What is OpenGL ?
2. What do you mean by object geometry ?
3. Explain scan conversion.
4. What do you mean by viewport ?
5. What is inverse translation ?
6. Explain pivot point rotation with an example.
7. Explain cabinet projection.
8. What is axonometric projection ?
9. What is diffuse reflection ?
10. What do you mean by wire frame modelling ? **(10×2=20)**

SECTION – B

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

11. a) Explain mid-point circle generating algorithm.

OR

b) Explain the working of CRT with a diagram.

P.T.O.

12. a) Explain Nichol-Lee-Nichol line clipping algorithm.

OR

b) Explain the scan line fill of convex polygon.

13. a) Explain 2D composite transformations.

OR

b) Explain with proper figures how scaling can be done relative to a fixed point.

14. a) Explain perspective projection.

OR

b) Explain the concept of 3D polygon clipping.

15. a) Explain quadric surfaces.

OR

b) Discuss Phong shading. **(5×8=40)**