SN – 405

V Semester B.A./B.Sc. Examination, November/December 2017
(Repeaters) (2015-16 Only)
COMPUTER SCIENCE – V
Computer Graphics

Time : 3 Hours   Max. Marks : 70

Instruction : *Answer all Parts.*

PART – A

Answer **any ten** questions. **Each** question carries **two** marks.   **(10×2=20)**

1. Define Computer graphics.

2. Define persistence.

3. Give examples of touch screen.

4. Define shear transformation.

5. What is point clipping ?

6. What are raster scan displays ?

7. What is staircase effect ?

8. Define parallel projection.

9. What is a segment file ?

10. List few area fill attributes.

11. List various text attributes.

12. Define hidden surface.

P.T.O.

PART – B

Answer **all** the questions :   (5×10=50)

13. a) Explain the working of direct view storage tube with a neat diagram.   6

    b) Explain RGB and CMY colour models.   4

OR

Explain DDA line drawing algorithm and manually plot by simulating for the points A(0, 0), B(8, 10).   10

14. Explain Cohen Sutherland line clipping algorithm with region codes and an illustration.   10

OR

Explain scanline area filling algorithm with an example each for convex and concave area filling.   10

15. Consider a triangle A(0, 0), B(1, 1), C(5, 2) perform :   10

    i) Translation by 5 units to the top and right

    ii) Rotation by 45 degrees

    iii) Scaling to double the size uniformly.

OR

Explain general pivot point rotation for a 2D object with an example.   10

16. Explain any two 3D transformations with supportive diagram and matrix representations.   10

OR

In detail write a note on 3D viewing techniques.   10

17. Explain Bezier curves and surfaces.   10

OR

Explain z buffer algorithm for hidden surface removal with an example.

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