Total No. of Questions : **16**]   [Total No. of Printed Pages : **3**

SEMC–239

M.Sc. (IInd Semester) Examination, 2022
COMPUTER SCIENCE (Lateral Entry)

Paper – FS–COMP–MCSLE–CC–201

(Computer Graphics and Multimedia)

*Time : **1½** Hours*]   [*Maximum Marks : **40***

Note :–   The question paper contains three Sections.

Section–A   **(Marks : 1 × 10 = 10)**

Note :–   Answer all *ten* questions (Answer limit **50** words). Each question carries

1 mark.

Section–B   **(Marks : 3 × 5 = 15)**

Note :–   Answer any *five* questions by selecting at least *one* question from each Unit

(Answer limit **200** words). Each question carries **3** marks.

Section–C   **(Marks : 5 × 3 = 15)**

Note :–   Answer any *three* questions by selecting *one* from each Unit (Answer limit

500 words). Each question carries **5** marks.

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Section–A

1. Attempt all questions :

(i) Define Computer Graphics.

(ii) What is Refresh Buffer/Frame Buffer ?

(iii) What is Pixel ?

(iv) Define Aspect Ratio.

(v) What is Translation ?

(vi) What is Scaling ?

(vii) What is Projection ?

(viii) What is GUI Interface ?

(ix) What is Animation ?

(x) What is Ambient Occlusion ?

Section–B

Unit–I

2. Differentiate Random Scan and Raster Scan.

3. Explain RGB, CMY, HSV Color Models.

4. Explain DDA Line Algorithm.

Unit–II

5. Discuss Matrix Representation.

6. What is Clipping ? Explain.

7. Explain Hidden Surface Removal.

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Unit–III

8. Explain Selecting, Rotating and Translating Objects.

9. Explain Stitching Vertices.

10. What is Bump Maps ? How are they created ? Explain.

Section–C

Unit–I

11. Write DDA Algorithm. Use it to draw a line segment joining points (4, 8) and (8, 10).

12. With the help of a diagram, explain the working of CRT. Why is refreshing needed in CRT ? Explain.

Unit–II

13. Compare and contrast between Perspective Projection and Parallel Projection. Give a suitable diagram for each.

14. Explain Window to view port transformation with the help of a diagram.

Unit–III

15. How to create Mesh Primitives and Extrusions in Blender ? Explain.

16. Explain the following in Blender :

    (a) Editing animation in Graph Editor

    (b) Building and animating a simple character