

Roll No. :

Total No. of Questions : 16]

[Total No. of Printed Pages : 3

SEM4016

M.Sc. (IVth Semester) Examination, 2021

COMPUTER SCIENCE

Paper - MCS-401 (B)

(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 the *ten* questions carries 1 mark each. The answer should not exceed 50 words.

Section-B

(Marks : 3 × 5 = 15)

Note :- Answer *five* questions by selecting at least *one* question from each Unit. Each question carries 3 marks. Answers should not exceed 200 words.

Section-C

(Marks : 5 × 3 = 15)

Note :- Answer *three* questions by selecting one question from each Unit. Each question carries 5 marks. The answer should not exceed 500 words.

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Section–A

1. Attempt all questions. Answers should not exceed **50** words in each question.
 - (i) What is CMY ?
 - (ii) What is Clipping ?
 - (iii) Define 3D.
 - (iv) What is Rendering ?
 - (v) Define HSV.
 - (vi) What is Animation ?
 - (vii) Define GUI interface of Blender.
 - (viii) What is the use of Graph Editor ?
 - (ix) What is Scaling ?
 - (x) What is Blender ?

Section–B

Note :- Answer *five* questions in about **200** words, by selection at least *one* question from each Unit. Each question carries 3 marks.

Unit–I

2. Explain the term Computer Graphics.
3. Explain midpoint line algorithm.
4. Explain the concept of 2D Graphics.

Unit–II

5. Find the equations of the plane forming the view volume for the general parallel projection.
6. What is the need of removing the hidden surfaces ?
7. Explain the common principle of animations.

Unit–III

8. Write down the steps to translating an object in blender.
9. Explain any *five* shortcut key use in blender.
10. What are the basic application area of blender ?

Section-C

Note :- Answer *three* question in this section, by selecting *one* question from each Unit in about **500** words. Each question carries 5 marks.

Unit-I

11. Compare the merits and demerits of Raster Scan and Random Scan display.
12. Give the algorithm of DDA line method with example.

Unit-II

13. The pyramid defined by the coordinates A(0, 0, 0), B(1, 0, 0), C(0, 1, 0) and D(0, 0, 1) is rotated 45° with respect to Z-axis. Find the coordinates of related object.
14. What is Composite Transformation ? Explain with example.

Unit-III

15. What is Mesh. What are the elements described for making any polygon object and also give some mesh editing tools ?
16. Write short notes on the following :
 - (a) Steps for organizing a scene with layer.
 - (b) How to add motion blur in blender ?