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Roll No. ....

Total Questions : 13 ]

[ Printed Pages : 3

# 18016

B.C.A. IVth Semester Examination, May-2019

## COMPUTER GRAPHICS AND MULTIMEDIA APPLICATION

[BCA-401(New)]

*Time : 3 Hrs. ]*

*[ M.M. : 75*

*Note :-* Attempt questions from all Sections as per instructions.

### Section-A

#### (Very Short Answer Type Questions)

*Note :-* Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words.

1. What is Computer Graphics ?
2. What is Video Controller ? Explain.

**NA-569**

( 1 )

Turn Over

3. What is Pixel and Frame Buffer ?
4. What is Flicking ?
5. What is Multimedia ?

### Section-B

#### (Short Answer Type Questions)

*Note :-* Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

6. Explain Raster and Random scan display system.
7. Explain the basic rules of animation with example.
8. Explain the uses of computer graphics.

### Section-C

#### (Long Answer Type Questions)

*Note :-* Attempt any *three* questions out of the following five questions. Each question carries 15 marks. (Not exceeding 400 words).

9. Write down and explain the mid-point circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the centre of the circle.

**NA-569**

( 2 )

10. What is the basic concept of line drawing ? Explain Bresenham's line Algorithm to draw a line between any *two* end-points.
11. Find  $3 \times 3$  homogeneous transformation matrix to transform square ABCD into another square A'B'C'D'. Side of the original square = 2, coordinate of point A(20, 10). Draw a final transformation graph paper.
12. Define and compare the Bezier curve and B-spline curve.
13. Write short notes on any *three* of the following :
  - (a) CRT
  - (b) Cohen-Sutherland line clipping algorithm
  - (c) Window and view port
  - (d) Polygon