Roll No. ....

273–N

B. Sc. (Part III) EXAMINATION, 2019

(New Course)

(Vocational Course)

INFORMATION TECHNOLOGY

Paper First

(Computer Graphics)

Time : Three Hours]   [Maximum Marks : 50

Note : Attempt questions from all Sections as directed.

Inst. :   The candidates are required to answer only in serial order. If there are many parts of a question, answer them in continuation.

Section—A

(Short Answer Type Questions)

Note : All questions are compulsory. Each question carries 3 marks.

1. (A)   Explain the representative uses of computer graphics.

   (B)   Define pixel and frame buffer.

   (C)   Explain the working of flat panel display.

   (D)   What is Polygon ? Explain the different types of polygons.

   (E)   Discuss the different text attributes.

   (F)   What is Morphing ?

Section—B

(Long Answer Type Questions)

Note : Attempt any two questions. Each question carries 8 marks.

2. Explain the working of CRT with proper diagram.

3. Explain the ellipse generating algorithm.

4. Describe boundary fill algorithm in detail.

5. Draw a line with end-points (0, 0) and (8, 8) using DDA algorithm. http://www.csjmuonline.com

Section—C

(Long Answer Type Questions)

Note : Attempt any two questions. Each question carries 8 marks.

6. Perform a counter clockwise 45° rotation of triangle A (2, 3), B (5, 5) C (4, 3) about a point (1, 1).

7. What is rotation ? How rotational matrix for clockwise and counter clockwise can be formulated ?

8. Write short notes on the following :

   (a)   2D translation

   (b)   3D effects

   (c)   Cubic curve

   (d)   Video controller

9. What is Animation ? Explain the principle of animation. Also explain its types.

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