

Daffodil International University Department of Computer Science and Engineering

Faculty of Science & Information Technology Midterm Examination, Spring 2021 @ DIU Blended Learning Center Course Code: CSE421 (Day), Course Title: Computer Graphics

> Level: 4 Term: 2 Section: A, B Instructor: NNM Modality: Open Book Exam Date: Tuesday, 9 March 2021 Time: 09:00-11:30 am Marks: 25

Directions:

1.

- Students need to go through the CASE STUDY shown in this exam paper.
- Analyze and answer specific section based on your own thinking and work.
- Do not share as this will be treated as plagiarism by Blended Learning Center.

Answer <u>ALL</u> Questions

| a | DVST-How it works? - Write your opinion. | [2.5] |
|----|---|-------|
| b) | "Computer Graphics is a vast and recent area in computer science"- Justify your answer according to its application | |
| | | [2.5] |

2. Draw the sheared object from the following object where $Sh_x = 2$. Rotate the object [5] with angle 40^0 in respect of y-axis.



3. Scientist Bresenham tries to draw a line improving DDA algorithm which should be drawn **[5]** between the points (43, 22) and (54, 27). Now you are Mr. Bresenham

4. Calculate the pixel location of a circle having center at (7, -5) and radius 16 units using mid **[5]** point circle algorithm. Draw that circle.

5. What type of anti aliasing occur in the following figure? How can you solve aliasing in this **[5]** technique?

