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Daffodil International University

Faculty of Science & Information Technology

Department of Computer Science and Engineering

Final Examination, Spring 2024

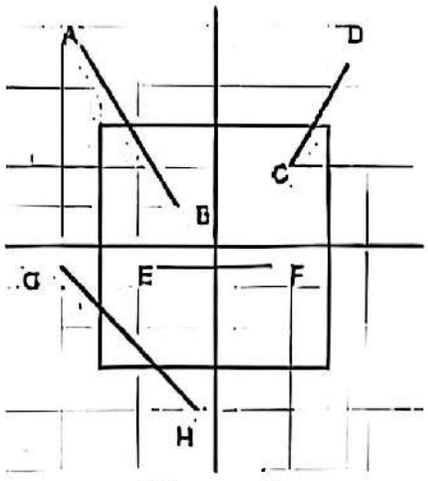
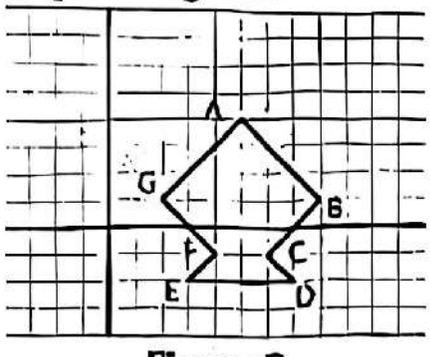
Course Code: CSE421, Course Title: Computer Graphics

Level: 4 Term: I Batch: 58th

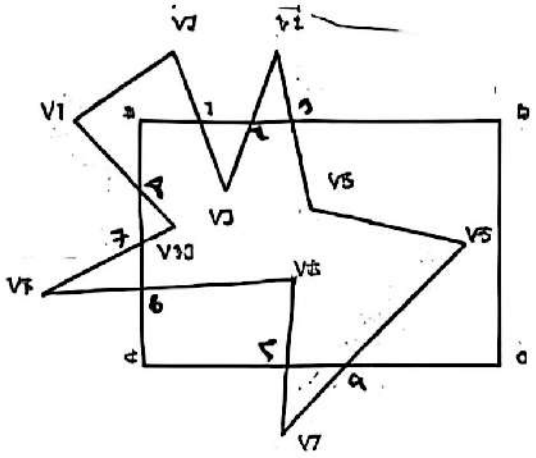
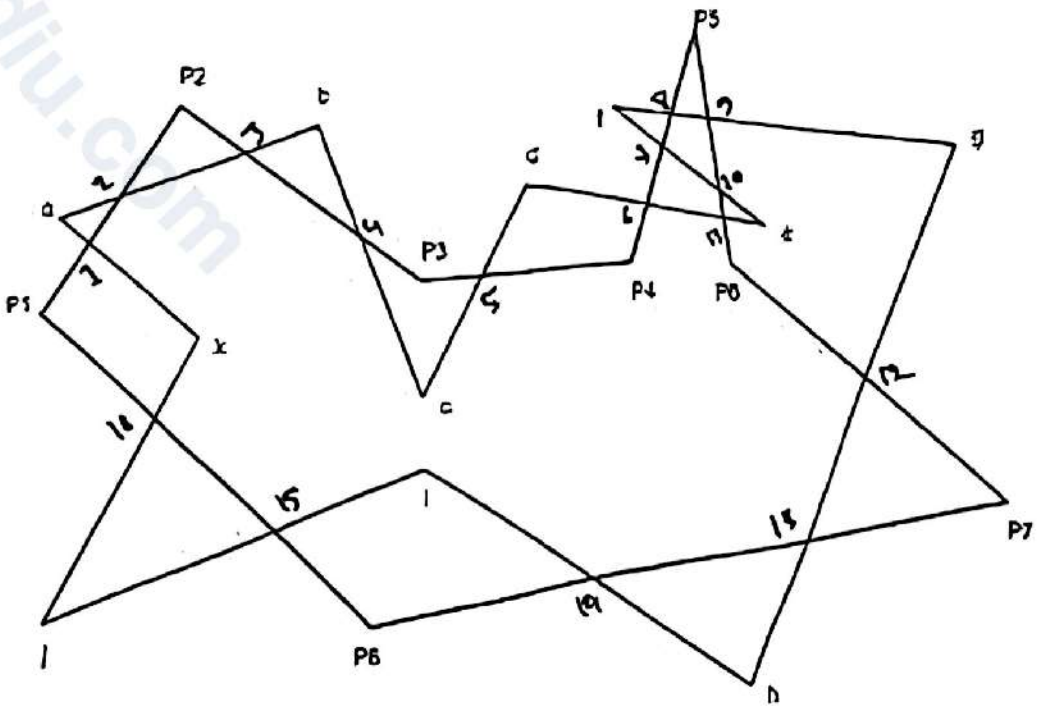
Time: 02:00 Hours **Marks: 40**

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.	a)	Suppose Ms. Ahmed is planning to start a digital marketing agency where she will create digital content such as online ads, social media graphics, and website designs. She is unsure about which color model to employ for her projects. Could you advise her on the best color model to use for her digital content creation and explain why?	[5]	CO1
	b)	Suppose an architect, Ms. Thompson, is utilizing 3D modeling software to create visualizations of her building designs for client presentations. She needs to choose between perspective and parallel projection techniques to best represent the spatial relationships and dimensions in her models. Now explain the differences between perspective and parallel projection, highlighting their respective advantages and disadvantages for architectural visualization?	[3]	
2.		In the following Figure: A, the rectangle box depicts a clipping window and the black lines depict the axes. Now, find out the categories of each lines and apply clipping operation using a proper Algorithm  **Figure: A**	[8]	CO3
3.		Discover the new points and plot of Figure: B  **Figure: B**	[8]	CO2

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		i. Rotate the following Figure: H, ** degree in clockwise direction ii. Share the object in x-axis with 4. iii. Reflect the object across y-axis. Instruction: ** is the last two digits of your ID (If your ID is 211-15-10534, then the degree will be 34)		
4		In the following Figure: C, **V1V2V3V4V5V6V7V8V9V10** is the subject polygon and **abcd** is the clipping window. Now **construct** the clipped polygon using appropriate polygon clipping Algorithm. Show all the steps. And explain the reason for choosing the algorithm.  **Figure: C**	[8]	CO3
5		In the following Figure: D, **P1P2P3P4P5P6P7P8** is the clipping window and **abcdefghijk** is the Subject polygon. Now apply a polygon clipping algorithm for constructing the clipped polygon. Show all the steps. And explain the reason for choosing the algorithm.  **Figure: D**	[8]	CO3