



Daffodil International University

Department of CSE
Faculty of Science & Information Technology
Midterm Examination, Semester: Summer-2018

Course Code: CSE 433

Course Title: Digital Image Processing

[Write the initials of your respective course teacher on top of your answer script.]

Time: 1 Hour and 30 Minutes

Full Marks: 25

Answer any three of the following questions.

1. (a) What is computer vision? Distinguish between monocular vision and binocular vision with diagram that represent their image formation methods. 3
(b) What is light? What are the properties of Light? How light helps to form image? 3
(c) Briefly explain different type of image operation with example. 2.33
2. (a) How an object is segmented from a gray image based on color based segmentation method? 3
(b) What do understand by image digitization? Explain using example 3
(c) What are connected pixels? Briefly explain 8-neighbours and 4-neighbour adjacency with example. 2.33
3. (a) Define color coordinate system with at least three examples. 2.33
(b) What is YIQ color coordinate system? Briefly explain color conversion process to convert RGB image to YIQ color coordinate system. 3
(c) Briefly explain region splitting and merging methods considering region based image segmentation. 3
4. (a) What are points, lines and edges? Briefly explain a point detection method with example. 3
(b) Briefly explain second order derivative method for edge detection. 2.33
(c) What is boundary or contour? Explain one contour detection method from gray image.