

## **Daffodil International University**

## **Department of Computer Science and Engineering**

## **Faculty of Science & Information Technology**

Midterm Exam Examination, Spring 2021 @ DIU Blended Learning Center

Course Code: CSE 212 (Day), Course Title: Basic Electronics

Level: 2 Term: 1 Section: PC-I, PC-J
Instructor: TRA Modality: Open Book Exam
Date: Tuesday, 9 March, 2021 Time: 09:00am-11:30am

Two and half hours (2:30) to support online open/case study based assessment Marks: 25

## **Directions:**

- 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.

Q1	What are the basic properties of a semiconductor? Describe the energy band diagram of a semiconductor at absolute zero and above absolute zero temperature.	5
Q2	Find $V_Q$ and $I_D$ in the network shown in Fig. given below. Use simplified model. (Here value of R is the last digit of your ID number) $ \frac{2 k \Omega}{S_i} $ R $k \Omega$	5
Q3	What do you understand by PIV? Demonstrate full wave rectifier with proper figure and wave shape.	5
Q4	How can you convert a pulsating DC to a Pure DC? What do you thing the best arrangement for it? Describe the arrangement with proper diagram.	5

