Daffodil International University
Department of Electrical and Electronic Engineering
Faculty of Engineering
Final Examination of Summer – 2021
Course Code – EEE 311   **Course Title –Communication Engineering**
Instructor's Initial: JAH   **L/T: 2-3**   **Section: A**   **Shift: Eve**
SET: B

Answer all the questions.

1	Suppose you have a message signal namely "DIU" and you have to transmit the signal via digital modulation. Transmit "D","I" and "U" in ASK,FSK and PSK respectively[CO-3].	**5**
2	Suppose in a communication channel of Bandwidth 5 KHz , a message will be sent via Pulse Code Modulation Technique. The message signal has 256 quantization levels. What will be the minimum bit rate of the channel ? [CO-3].	**5**
3	What are the advantages of angular modulation over amplitude modulation? With mathematical explanation show that a phase modulated wave can be generated from frequency modulator[CO-3].	**3+2**
4.	Suppose in envelop detection modulation technique ,the message signal is a sinusoidal signal with peak to peak value of 6 Volt and the carrier signal is a high frequency carrier signal with peak to peak value of 18 Volt . Sketch modulated signal with proper scaling of the amplitude of the signal and also calculate the efficiency [CO-3].	**4+1**
5.	Apply NRZ , RZ and Manchester line coding technique to transmit the number '211' with proper diagram[CO-4]..	**5**
6	Sketch the logic levels for the message 'HT' when it is transmitted in asynchronous mode with stop bit equal to one bit. Use ASCII code with odd parity[CO-4]..	**5**