



Daffodil International University

Department of Computer Science and Engineering

Faculty of Science & Information Technology

Final Examination, Summer 2022

Course Code: CSE212 (Day), Course Title: Basic Electronics

Sections & Teachers : All

Time: 2:00 Hours

Marks: 40

Answer ALL Questions

1.	a)	What are Donor & Acceptor impurities? Explain the Limitations in operating conditions of the pn junction in detail.	[2+3]	CO1
	b)	How Full Wave bridge Rectifier works, Explain it with a diagram.	[5]	
2.	a)	Prove that $I_C = \beta I_B + I_{CEO}$ for CE connection.	[5]	CO2
	b)	Explain the working process of the Transistor to raise the strength of a weak signal with a proper example.	[4]	
	c)	In which condition, faithful amplification will achieve? What is the working principle of JFET write it in detail.	[2+4]	
3.	a)	A Full-Wave rectifier uses two diodes, the internal resistance of each diode may be consumed constantly at $20\ \Omega$. If the peak inverse voltage is 141.4 V & load resistance is $980\ \Omega$ then solve it to get the followings: i) I_{dc} ii) I_{rms} iii) Draw the Circuit	[8]	CO3
	b)	A transistor is connected in CE configuration in which the collector supply is 8V and the voltage drop across resistance R_C connected in the collector circuit is 0.5V . The value of R_C is $800\ \Omega$. If the current amplification factor is 0.96 , then i) Build the Circuit ii) Find V_{CE} & I_B	[7]	