

B.Sc Sem.-6 (Rep) Examination

CC 309

Electronics

Time : 2-30 Hours]

September-2024

[Max. Marks : 70

	Instructions: 1) Figures to the right indicates marks 2) Symbols used here have their usual meaning	
Q. I		
A)	What is light? Write notes on history of the fiber optics.	07
B)	Explain term reflection and refraction in detail with suitable figure.	07
	OR	
A)	Explain term dispersion, diffraction and scattering in detail.	07
B)	Explain terms absorption and Fresnel reflection in detail.	07
Q.II		
A)	Draw the block diagram of TRF receiver and explain any three block.	07
B)	Draw the block diagram of Super Heterodyne Receiver and explain each block in brief.	07
	OR	
A)	Explain sensitivity and selectivity of RF section in SHR.	07
B)	What is separately excited mixer and self-excited mixer? Explain in detail.	07
Q. III		
A)	Write notes on introduction of television.	07
B)	Explain television Systems and Standards in detail.	07
	OR	
A)	Explain scanning process of the television in detail with suitable figure.	07
B)	Draw the simplified mono chrome television block diagram and explain any three block.	07
Q.IV		
A)	Explain fundamental of digital communication in detail.	07
B)	Explain Computer system history in detail.	07
	OR	
A)	Explain data transmission speed in detail.	07
B)	What is the Baudot code and binary code? Explain it.	07
Q-V	Attempt any seven out of twelve	14
(A)	Full form of ALOFT is _____	
(B)	Reflections in many directions are called _____	
(C)	If the substance emits light of a wavelength longer than that of the incident light, this is called _____	
(D)	The _____ of a receiver is its ability to reject unwanted signals	

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(E)	Full form of AGC is _____	
(F)	The local oscillator (LO) is a tunable circuit with a tuning range that extends from _____ kHz to _____ kHz.	
(G)	American Standards of Major Television Systems, number. of lines per frame is = _____	
(H)	Line frequency in European system is = _____ Hz	
(I)	One field covers even-numbered lines, from top to bottom, and the second field fills in the odd-numbered lines. This is known as _____ scanning	
(J)	The French scientist _____ is credited with the invention of the first adding machine in 1642	
(K)	Each of the 2-bit elements is called a _____	
(L)	The _____ law is related to random noise	

—X—