

B.Sc. Semester-6 Examination

CC 309

Electronics

March-2023

Time : 2-30 Hours]

[Max. Marks : 70

Instructions: (1) Symbol used have their usual meaning (2) Figures to the right indicate marks		
Q-1		
A)	Write notes on history of fiber optics	07
B)	Explain term reflection and refraction with necessary figure.	07
OR		
Q-1		
A)	Explain following terms (1) Dispersion (2) Diffraction (3) Absorption	07
B)	Explain Scattering, Fresnel reflection and snell's law in brief.	07
Q-2		
A)	Write short note on TRF receiver	07
B)	Draw the block diagram of Super Heterodyne Receiver and explain each block	07
OR		
Q-2		
A)	What is intermediate Frequency? and IF Amplifiers in detail	07
B)	Explain operation of diode detector	07
Q-3		
A)	What is television systems and standards? Explain in detail	07
B)	Explain scanning process of television with suitable figure.	07
OR		
Q-3		
A)	What blanking and synchronizing Pulses? Explain with suitable figure	07
B)	Write notes on color television	07
Q-4		
A)	Write short note on history of the computer system.	07
B)	Explain data transmission speed in digital technology	07
OR		
Q-4		
A)	Explain following term of digital technology (1) Noise (2) Echo suppressors	07
B)	What is error detection and correction in digital communication? Explain parity-Check Codes in detail.	07
Q-5	Attempt any seven out of twelve	14
1	Refractive index of fused quartz is _____ and water is _____	
2	If the substance emits light of a wavelength longer than that of the incident light, this is called _____	
3	In 1870 _____ a natural philosopher living in England, demonstrated one of the first guided light systems to the Royal Society	

E15-2

4	The local oscillator is a variable oscillator capable of generating a signal from - _____ MHz to _____ MHz	
5	The _____ of a radio receiver is its ability to amplify weak signals	
6	The _____ of a receiver is its ability to reject unwanted signals	
7	Full form of FCC is _____ and NTSC is _____	
8	In Television system, Number of lines per frame in American standard is _____ lines and in European system _____ lines	
9	The VHF tuner must cover the frequency range from _____ to _____ MHz.	
10	Full form of EBCDIC is _____	
11	In digital technology, _____ determined that one cycle of a transmission can contain a maximum of two bauds.	
12	The _____ law is related to random noise,	

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