

Total number of printed pages:

Programme (D)/4th/DECE402

2023

CONSUMER ELECTRONICS

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.	a)	Explain different types of quality of Microphone. Also differentiate between frequency response and distortion of microphone.	5+3=8
	b)	Explain in details about Crystal Microphone along with its diagram.	7
	c)	Compare the similarities between all types of microphone in terms of quality, merits and demerits.	5
2.	a)	Explain different features of Loudspeaker in details.	6
	b)	Explain the working principle of Horn Loudspeaker with its proper construction.	8
	c)	Differentiate between woofers, tweeters and squawker.	6
3.	a)	A tweeter has a cross over frequency of 1500 Hz, if the resistance of the woofer is 25 mohms; find the values of L and C of the crossover circuit.	4
	b)	A woofer has a cross over frequency of 1000 Hz. The cross over circuit has an inductance of 6mH. Find (a) resistance of woofer (b) capacitance of crossover circuit.	4
	c)	Define cross over circuit of the loudspeaker. Also explain the working principle of cross over circuit for woofer and tweeter types of loudspeaker.	2+10
4.	a)	Explain the working of recording head and playback head in the Magnetic tape recorder system. Also differentiate between two of them.	6+3=9
	b)	Differentiate between Magneto-optical recording and domain propagation memory.	4
	c)	Explain the Monophonic sound and its advantages, disadvantages in details.	7
5.	a)	Differentiate between Monophonic sound and Stereophonic sound.	6
	b)	Explain why phosphor screen is necessary in the TV system.	7

	c)	Describe the function of Scanning and synchronizing circuit in the TV system.	7
6.	a)	Explain the working principle of Monochrome Picture tube in details.	10
	b)	Explain the working principle of Monochrome TV transmitter in details.	10
7.	a)	What is Plasma? Explain the main function of dielectric layer and phosphor coating in plasma cells in the working of Plasma display.	2+6=8
	b)	Explain the colour TV receiver by providing the circuit diagram.	9
	c)	Explain how CD player works?	3

