

Total number of printed pages = 3

19/4th Sem/DECE 402

2022

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 the 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 the different features of Loudspeaker in details. 6
- (b) Explain the working principles of Horn Loudspeaker with its proper construction. 8

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(c) Differentiate among 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 cross-over circuit. 4

(b) A woofer has a cross-over frequency of 1000 Hz. The cross-over circuit has an inductance of 6 mH. Find :

(a) Resistance of woofer

(b) Capacitance of crossover circuit. 4

(c) Define cross-over circuit of the loudspeaker. Also explain the working principles of cross-over circuit for woofer and tweeter types of loudspeaker. 2+10=12

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 Graphic equalizer is necessary in the Audio system. 7
- (c) Describe the functions of Scanning and Synchronizing circuit in the TV system. 7
6. (a) Explain the working principles of Monochrome Picture tube in details. 10
- (b) Explain the working principles of Monochrome TV transmitter in details. 10
7. (a) What is Plasma ? Explain the main functions 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

