

5th Sem / Branch : Eltx.  
Sub.: Audio Video Systems/Consumer Eltx.

Time : 3Hrs. M.M. : 100

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 \_\_\_\_\_ Microphone has best frequency response. (CO1)

- a) Moving coil
- b) Carbon
- c) Crystal
- d) Ribbon

Q.2 Tweeters are used for \_\_\_\_\_ (CO1)

- a) Low frequencies
- b) High Frequencies
- c) Medium Frequencies
- d) Very High Frequencies

Q.3 The storage characteristic of DVD is approximately \_\_\_\_\_ (CO1)

- a) 5 GB
- b) 10 GB
- c) 15 GB
- d) 20 GB

Q.4 The Aspect Ratio of T.V. is \_\_\_\_\_ (CO3)

- a) 3/4 Hz
- b) 5/3
- c) 4/3
- d) 3/5

Q.28 Define YUV representation of signals. (CO4)

Q.29 Explain in brief JPEG method of compression. (CO4)

Q.30 With the help of diagram, explain CATV. (CO5)

Q.31 Show how DTH system works? (CO5)

Q.32 Explain basic principle of LCD display. (CO6)

Q.33 What are advantages of LEDs over LCDs. (CO6)

Q.34 What is need of synchronizing pulses in T.V. (CO3)

Q.35 Write in detail the main components of optical recording. (CO1)

**SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the concept of Scanning, why it is needed? (CO3)

Q.37 (a) Explain the concept of Audio as data. (5) (CO2)

(b) Write in detail about CCTV. (5) (CO5)

Q.38 Explain different types of MPEG compression formats. (CO4)

**Note :** Course Outcome (CO) mentioned in the question paper is for official purpose only.

- Q.5 The maximum value of dBfs can be (CO2)  
 a) 0 b) 1  
 c) Between 0 & 1 d) Infinity
- Q.6 Red + Blue = (CO3)  
 a) White b) Yellow  
 c) Magenta d) Cyan
- Q.7 Value of subcarrier frequency in NTSC system is (CO3)  
 a) 3.58 MHz b) 4.1 MHz  
 c) 4.43 MHz d) 4.73 MHz
- Q.8 Digital Audio is \_\_\_\_\_ (CO2)  
 a) Steps in time b) Continuous in time  
 c) Discrete in time d) Both steps & Discrete
- Q.9 For HDTV, the compression format used is (CO4)  
 a) MPEG-1 b) MPEG-2  
 c) MPEG-3 d) MPEG-4
- Q.10 In LCDs, the polarization angle is (CO6)  
 a) 60 Degrees b) 90 Degrees  
 c) 120 Degrees d) 180 Degrees

### SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Write any two applications of carbon microphone. (CO1)

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- Q.12 What is frequency range of Woofers? (CO1)
- Q.13 Define flicker. (CO3)
- Q.14 Write any two advantages of digital audio. (CO2)
- Q.15 Define Luminance. (CO3)
- Q.16 Define quantization. (CO4)
- Q.17 Expand DTH. (CO5)
- Q.18 Write any two advantages of LEDs. (CO6)
- Q.19 Define RGB signal. (CO4)
- Q.20 Expand the term PAL in T.V. (CO3)

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Explain the basic principle and working of Condenser microphone. (CO1)
- Q.22 Which type of mixing is used in colour T.Vs & why? (CO3)
- Q.23 Explain the concept of Resolution in T.V. (CO3)
- Q.24 Why crossover networks are required? explain its working. (CO1)
- Q.25 Explain in brief "Time Compression". (CO2)
- Q.26 Explain various terms in composite video signal. (CO3)
- Q.27 Write advantages of NTSC system. (CO3)

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