

- Q.33 Explain the terms Blacker than Black level and Blanking signal.
- Q.34 Explain the concept of colour Mixing.
- Q.35 Explain different methods of sound recording on films.

### Section-D

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

- Q.36 What do you understand by VSB transmission. How this method reduces channel bandwidth?
- Q.37 Give a detailed account of Delta gun picture tube.
- Q.38 What is DTH. How it works and mention its features?

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**5th Sem., Branch : Eltx.  
Subject : Audio Video Systems/ Consumer Eltx.**

Time : 3 Hrs.

M.M. : 100

### SECTION-A

**Note:** Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 A loudspeaker converts
- Sounds signals into electrical signals
  - Electrical signals into sound signals
  - Both A & B
  - Neither A & B
- Q.2 Moving coil microphone works on the principle of
- Resistance
  - Capacitance
  - Inductance
  - Electromagnetic
- Q.3 How many scanning fields are there in one picture frame
- One
  - Two
  - Three
  - Four
- Q.4 A low voltage represents a binary
- 1
  - 0
  - Both
  - None of the above
- Q.5 Which range is visible to human eye
- Ultraviolet range
  - Visible Range
  - Infrared range
  - None of these

- Q.6 Full form of MPEG  
 a) Moving Picture Expert Group  
 b) Moving Pics Expert Group  
 c) Moving Photographic Expert Group  
 d) Moving Pressure Expert Group
- Q.7 LCD operates in the frequency range  
 a) 30 Hz-60Hz      b) 50Hz-70Hz  
 c) 60Hz-120Hz      d) None
- Q.8 Aspect ratio in PAL system is  
 a) 3:4      b) 4:3  
 c) JPEG      d) None of the above
- Q.9 Which of the following is an example of lossy compression  
 a) BMP      b) MPEG  
 c) JPEG      d) Huffman coding
- Q.10 The difference between the sound carrier frequencies in two adjacent channels is  
 a) 0.25 MHz      b) 1.25 MHz  
 c) 6 MHz      d) 7 MHz

### Section-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Name different types of microphone.  
 Q.12 Expand VSB.  
 Q.13 Define Sampling.

- Q.14 \_\_\_\_\_ microphone are cheapest microphone.  
 Q.15 Frequency for sound IF carrier is \_\_\_\_\_.  
 Q.16 Expand PAL.  
 Q.17 Define Aspect Ratio.  
 Q.18 Define Woofer.  
 Q.19 Bit Rate of MPEG is \_\_\_\_\_.  
 Q.20 Expand TFT.

### Section-C

**Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Explain time compression and expansion.  
 Q.22 Write short note on cordless microphone.  
 Q.23 Explain how R. G. and B signals are formed.  
 Q.24 Give the advantages of LED televison over LCD television.  
 Q.25 During retrace the beam must be blanked. Explain why?  
 Q.26 Explain different types of LED Television.  
 Q.27 What is meant by colour purity? Briefly explain the functioning of purity magnets in a picture tube.  
 Q.28 Write short note in carbon microphone.  
 Q.29 Write basic steps in JPEG image compression.  
 Q.30 Write short note on H.264.  
 Q.31 Compare lossless and lossy compression.  
 Q.32 Explain the purpose of Aquadag in TV picture tube.