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5th Sem / Eltx

Subject:- 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 converts.

- a) Sound signals into electrical signals
- b) Electrical signals into sound signals
- c) Both (a) & (b)
- d) Neither (a) & (b)

Q.2 Sound waves with frequency 20Hz to 20KHz are termed as

- a) Inaudible sound b) Infrasonic
- c) Ultrasonic d) Audible sound

Q.3 Which modulation is used for carrying an audio Waveform in digital form.

- a) PCM b) ASK
- c) PSK d) FSK

Q.4 A high voltage represent a binary.

- a) 1 b) 0
- c) both d) None of these

Q.5 The spacing between picture carrier & sound carrier frequency in TV is.

- a) 8 MHz b) 5.5 MHz
- c) 5 MHz d) None of these

Q.6 What is horizontal scanning frequency in hertz.

- a) 15,750 Hz b) 15,000 Hz
- c) 12,750 Hz d) None of above

Q.7 Optical range extends from.

- a) 0 nm to 10 mm b) 1nm to 1mm
- c) 5 nm to 5 mm d) None of the above

Q.8 Full form of JPEG is.

- a) Joint pressure expert group
- b) Joint picture expert group
- c) Joint pic expert Group
- d) Joint photographic expert group

Q.9 Which of the following is an example of lossless compression.

- a) JPEG
- b) MPEG
- c) BMP
- d) RLE (Run length Encoding)

Q.10 Which of the following displays has minimum power Consumption ?

- a) Fluorescent b) LED
- c) LCD d) Nixie Tubes

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SECTION-B

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

- Q.11 Define flicker noise.
- Q.12 What is full form of Hi-Fi.
- Q.13 Define quantisation.
- Q.14 Expand EHT.
- Q.15 Frequency for picture If carrier is_____.
- Q.16 Expand NTSC.
- Q.17 Define Hue.
- Q.18 Define digital Video.
- Q.19 Write one application of JPEG.
- Q.20 Expand CCTV.

SECTION-C

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

- Q.21 Explain working principle of horn type loudspeaker.
- Q.22 Write short note on variable area method of optical recording.
- Q.23 Explain Condenser Microphone.
- Q.24 Give the advantages of digital system over analog system.

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- Q.25 Discuss the function of AGC.
- Q.26 Explain why VSB transmission is used?
- Q.27 What is negative modulation?
- Q.28 Define frequency interleaving.
- Q.29 State and explain Grassman's law.
- Q.30 Explain colour triangle.
- Q.31 What is the need of compression?
- Q.32 Compare JPEG and MPEG.
- Q.33 Write short note on H.261
- Q.34 Give advantages of LCD television over CRT television.
- Q.35 Mention different characteristics of LCD to characterize its quality.

SECTION-D

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

- Q.36 What do you mean by Interlaced scanning? Explain why it is needed.
- Q.37 Explain the PAL colour TV system by giving its main features viz U & V signals, burst, colour sub carrier etc.
- Q.38 Draw and explain block diagram of LCD Television.

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