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181052/171052/
121052/031051

5th Sem / 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 The diameter of compact disc is (CO-1)
a) 8 c.m. b) 10 c.m.
c) 12 c.m. d) 15 c.m.
- Q.2 Carbon Microphones work on the principle of variation of (CO-1)
a) Capacitance b) Inductance
c) Resistance d) Impedance
- Q.3 MPEG stands for (CO-4)
a) Multi picture expert grid
b) Multi photographic expert grid
c) Motion pictures expert group
d) Motion pictures expansion group
- Q.4 The Retrace time of a horizontal sanning line is _____ (CO-3)
a) 12 ms b) 24 ms
c) 36 ms d) 52 ms
- Q.5 Scanning lines used in Indian T.V. system are _____ (CO-3)

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- a) 525 b) 625
c) 819 d) 1020
- Q.6 In subtractive mixing, white - Blue = (CO-3)
a) Black b) Yellow
c) Magenta d) Cyan
- Q.7 White level in composite signal lies at _____. (CO-3)
a) ZERO b) 10
c) 20 d) 100
- Q.8 Which modulation method is used in DTT (CO-5)
a) QAM b) AM
c) FM d) PM
- Q.9 For multimedia contents, the compression format used is _____ (CO-4)
a) MPEG-3 b) MPEG-4
c) MPEG-7 d) MPEG-21
- Q.10 Load speakers work on the principle of (CO-1)
a) Amplifier b) Motor
c) Generator d) Attenuator

SECTION-B

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

- Q.11 Write frequency range of Mid Range Speakers. (CO-1)
- Q.12 What is full form of JPEG. (CO-4)
- Q.13 Define saturation of colours. (CO-3)
- Q.14 Define Time expansion. (CO-4)

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- Q.15 White is _____ colour (Primary/Secondary) (CO-3)
 Q.16 Write one advantages of compression. (CO-4)
 Q.17 Write any two applications of CATV. (CO-5)
 Q.18 Write any two advantages of LEDs. (CO-6)
 Q.19 Expand DTT, give its applications. (CO-5)
 Q.20 Write any two advantages of digital audio. (CO-2)

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 Cordless microphone. (CO-1)
 Q.22 Write in detail about concept of audio as signal. (CO-2)
 Q.23 Explain the concept of persistence of vision. (CO-3)
 Q.24 Define & Explain Grassman's Law. (CO-3)
 Q.25 How audio is considered as data? Explain. (CO-2)
 Q.26 What is Flicker, how it is removed? (CO-3)
 Q.27 Write in detail the main components of optical recording. (CO-1)
 Q.28 What is need of synchronizing & blanking pulses in T.V. (CO-3)
 Q.29 Explain in brief MPEG-1 method of compression. (CO-4)
 Q.30 With the help of diagram, explain DTH. (CO-5)
 Q.31 Show how CCTV system works? (CO-5)

- Q.32 Explain basic principle of Polarization of TN in LCD display. (CO-6)
 Q.33 Briefly compare NTSC & PAL system. (CO-3)
 Q.34 Define lossy compression, give examples. (CO-4)
 Q.35 Differentiate between Active & Passive matrix LCDs. (CO-6)

SECTION-D

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

- Q.36 Why Multi-speaker systems are required, explain their working. (CO-1)
 Q.37 With the help of neat diagram, explain composite video signal. (CO-3)
 Q.38 (a) Explain VSB transmission in detail (5) (CO-3)
 (b) Explain RGB representation of video (5) (CO-4)

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