

No. of Printed Pages : 4 181052/171052/
Roll No. 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 scanning 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.