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Roll No.

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Eltx. Engg.
Subject:- Audio Video Systems/ Consumer Electronics

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which microphone has the best frequency response?

- a) carbon microphone
- b) ribbon microphone
- c) moving coil microphone
- d) condenser microphone

Q.2 In telephones _____ Microphone is used.

- a) carbon
- b) ribbon
- c) moving coil
- d) condenser

Q.3 Light emitting diodes emits light when it is in _____

- a) zero biased
- b) reversed biased
- c) forward biased
- d) none of the above

Q.4 What is the aspect ratio used in Indian TV system?

- a) 16:9
- b) 4:9
- c) 3:7
- d) 16:12

Q.5 The total duration of one complete line in TV system is called _____

- a) blanking period
- b) line period
- c) synchronization pulse duration
- d) none of the above

Q.6 Which material is used to coat inside CRT face?

- a) lithium
- b) phosphorus
- c) sodium
- d) potassium

Q.7 How many electron gun is/are used in color TV picture tube?

- a) One
- b) Two
- c) Four
- d) Three

Q.8 Which of the following is not a primary color?

- a) red
- b) green
- c) yellow
- d) blue

Q.9 A loudspeaker converts _____ signals into _____ signals

- a) electrical, sound
- b) sound, electrical
- c) electrical, mechanical
- d) mechanical, electrical

Q.10 Treble is used for _____

- a) low frequency
- b) high frequency
- c) extremely low frequency
- d) none of the above

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SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 What do you mean by resolution?
- Q.12 Expand the term DVD.
- Q.13 Name the primary colors.
- Q.14 What is the full form of LED.
- Q.15 What is a microphone?
- Q.16 For which frequency, the woofer is used?
- Q.17 How many lines are scanned in one complete frame?
- Q.18 Expand the term DSL.
- Q.19 How many electron gun is/are used in monochrome TV picture tube?
- Q.20 Give the name of grids used inside the CRT.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 Explain the characteristics of microphones.
- Q.22 Explain the concept of additive & subtractive mixing.
- Q.23 How you can distinguish between woofer and tweeter speakers?
- Q.24 Discuss the need of synchronizing and blanking pulses.
- Q.25 Describe the transport mechanism of tape recorder.

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- Q.26 Distinguish between LED & LCD TV.
- Q.27 What do you mean by scanning? What are its types?
- Q.28 Discuss the functions of equalizing pulses in TV signal transmission.
- Q.29 Give the comparison between NTSC, PAL & SECAM systems.
- Q.30 Distinguish between microphone and loudspeaker.
- Q.31 Explain the composition of composite video signal.
- Q.32 Explain the construction and working of vidicon camera tube.
- Q.33 Write a short note on MPEG-4 format.
- Q.34 Explain with diagram, the working of NTSC decoder system.
- Q.35 Write a short note on DTH.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 10 = 20)$

- Q.36 Describe the working of carbon microphone in detail along with its characteristics.
- Q.37 Explain with suitable diagram, the working principle of monochrome picture tube.
- Q.38 Write a short note on any two of the following:
 - a) Elements of TV communication
 - b) CRT
 - c) Ribbon microphone

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