

Roll No.

Total Pages : 2

Exam. Code

6037

8712

BT-7/M-11

TELEVISION ENGINEERING-

Paper : ECE-403(E)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt *five* questions in all, selecting at least *one* question from each unit.

UNIT-I

1. (a) Explain fine structure of picture considering vertical and horizontal resolution, colour resolution & bandwidth, effect of interlace scanning on bandwidth and bandwidth requirement for transmission of sync. pulses (12)
(b) Explain Compatibility between colour and monochrome TV systems. = (05)
(c) What is an interlace error? Evaluate the interlace error when the delay is 16 μ s. (03)
2. (a) Explain complete channel bandwidth for CCIR (Indian and European TV Channel), UK TV Channel and American TV Channel standard. (15)
(b) Explain demerits of vestigial sideband transmission. (05)

UNIT-II

3. (a) Explain in brief block diagram of a monochrome TV receiver. (15)
(b) Explain an electron multiplier structure used in camera tube. (05)

4. (a) Explain an image orthicon camera tube. (15)
(b) Explain transfer characteristics of a picture tube. What is cut-off bias in a picture tube ? (05)

UNIT-III

5. (a) Explain three colour theory, additive colour mixing theory and grassman's law. (15)
(b) Explain Luminance, Hue and Saturation in a colour TV system. (05)
6. (a) Explain a Delta-gun colour picture tube. (15)
(b) Explain bandwidth requirement for colour signal transmission. <http://www.kuonline.in> (05)

UNIT-IV

7. (a) Explain CCTV and its applications. (15)
(b) Explain a Camcorder. (05)
8. Write short notes on any *three* of the following :
(a) Merits of digital TV technology.
(b) Remote control.
(c) Log-periodic antenna.
(d) HDTV. (20)