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Reg. No. :

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Question Paper Code: 59411

B.E./B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Electronics and Communication Engineering

15UEC911 – TELEVISION AND VIDEO ENGINEERING

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. The width to height ratio of a picture frame is called as CO1-R
(a) aspect ratio (b) framing ratio (c) perception ratio (d) picture ratio
2. What is the impedance at the antenna input terminals of a TV receiver? CO2-R
(a) 300 ohms (b) 150 ohms (c) 50 ohms (d) 100 ohms
3. CATV service provider can receive signals from CO3-U
(a) satellite (b) tower (c) DVR (d) NVR
4. Scrambling of cable TV signals requires CO4-R
(a) reversal of CVS (b) removal of sync pulses from CVS
(c) Quantization of video signals (d) addition of sync pulses from CVS
5. Active Scanning lines per frame in HDTV is CO5-R
(a) 1125 (b) 1175 (c) 1080 (d) 1250

PART – B (5 x 3= 15 Marks)

6. Define picture resolution. CO1-R
7. What is the main function of the blanking pulses? CO2-R
8. What do you understand by satellite TV? CO3-R
9. Write short notes on CCTV. CO4-U
10. List some merits of high definition television CO5-U

PART – C (5 x 16= 80 Marks)

11. (a) Explain the Construction and working principle of TV camera tube. CO1-U (16)
Outline the performance metric.
Or
(b) Explain in detail about the Television camera tubes-Picture tubes CO1-U (16)
12. (a) Using neat diagram, Explain the PAL encoding and decoding CO2-U (16)
schemes used for TV signal broadcast..
Or
(b) With Neat sketch explain about the SECAM Transmitter and CO2-U (16)
Receiver
13. (a) Recall about Direct to Home (DTH) services for TV signal CO3-U (16)
broadcast.
Or
(b) Explain transponders and space craft antennas in satellite CO3-U (16)
communication and calculate its gain and HPBW.
14. (a) Explain the TV signal processing CATV and MATV. CO4-U (16)
Or
(b) What is pay TV? Discuss scrambling and descrambling techniques? CO4-U (16)
15. (a) Explain the HDTV standards and its fundamental principles. CO5-U (16)
Or
(b) Analyze the working of Smart TV system. CO5-U (16)