Reg. No. : | | | | | | | | | | |

Question Paper Code: 49412

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Electronics and Communication Engineering

14UEC912- TELEVISION AND VIDEO ENGINEERING

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

1. Which of the following camera tube uses lead oxide (PbO) for the photoconductive target plate CO1- R

   (a) Vidicon (b)Saticon (c)Plumbicon (d)Image Orthicon

2. Camera signal output without sync is called CO1- R

   (a) Black burst (b)Composite video

   (c)General lock video (d)Non-Composite video

3. AGC permits CO2- R

   (a) increase in gain for weak signals (b) decrease in gain for weak signals

   (c) increase in attenuation for weak signals (d) decrease in attenuation for weak signals

4. Dynamic range of IF AGC is CO2- R

   (a) 33db (b) 44db (c) 55db (d) 66db

5. In monochrome receiver, the orange hue will appear as_____ CO3- R

   (a) Dark Gray (b) Black (c) Bright Gray (d) White

6. The R,G,B video drive controls are set for _____ in the picture CO3- R

   (a) Gray (b) Black dark (c) White (d) Green

7. Which of the following stages has bias from the ACC and color killer circuit CO4- R

(a)R-Y demodulator (b)Chroma BPA

(c)R-Y video amplifier (d)Color Oscillator

8. NTSC monochrome system used in_____ CO4- R

(a) India (b) America

(c) French (d) None of the above

9. Which system uses a laser light beam for playback? CO5- R

(a) CED (b)tamex be (c) VHD (d)VLF

10. Abbreviation f CCTV CO5- R

(a) Customized Circuit Television (b) Combined Colour Television

(c) Closed Circuit Television (d) Closed Circle Television

PART – B (5 x 2= 10Marks)

11. What is known as flicker? CO1- R

12. What are the requirements of TV broadcast systems. CO2- R

13. What is Gamma Correction CO3- R

14. Distinguish between S-PAL and D-PAL CO4- R

15. Why scrambling needed in Television Systems CO5- R

PART – C (5 x 16= 80Marks)

16. (a) Illustrate the working principle of Image orthicon camera tube. CO-1 U (16)

Or

(b) Explain the beam deflection principle in monochrome picture tube. CO-1 U (16)

17. (a) Draw the detailed block diagram of monochrome TV receiver and explain CO-2 U (16)

Or

(b) Explain briefly about TV transmission antennas. CO-2 U (16)

18. (a) Discuss the gun structure and working principle of delta gun picture tube. CO-3 U (16)

Or

	(b)	Describe the construction details of a PLL tube and explian how its different from delta gun colour tube. What are astigmatismand errors in it?	CO-3 U	(16)
19.	(a)	Explain the concept of SECAM coder and decoder	CO-4 U	(16)
		Or		
	(b)	Explain the operation of SECAM encoder and decoder.	CO-4 U	(16)
20.	(a)	Give detailed notes on Digital TV transmission and reception.	CO-5 U	(16)
		Or		
	(b)	(i) Draw the block diagram of satellite TV Systems and explain its operation	CO-5 U	(8)
		(ii) Explain in detail the concept behind the digital television transmission and reception	CO-5 U	(8)