

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 49412

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

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)

- Which of the following camera tubes has minimum lag? CO1- R
(a) Vidicon (b) Plumbicon (c) Saticon (d) Iconoscope
- Camera signal output without sync is called CO1- R
(a) Black burst (b) Composite video
(c) General lock video (d) Non-Composite video
- AGC circuit is used to control the _____ of RF and IF CO2- R
amplifiers.
(a) Voltage (b) Gain (c) Power (d) Current
- Dynamic range of IF AGC is CO2- R
(a) 33db (b) 44db (c) 55db (d) 66db
- In monochrome receiver, the orange hue will appear as _____ CO3- R
(a) Dark Gray (b) Black (c) Bright Gray (d) White
- Static convergence is done for the _____ of the screen. CO3- R
(a) center (b) edges (c) left (d) right
- Which of the following stages has bias from the ACC and color killer CO4- R
circuit
(a) R-Y demodulator (b) Chroma BPA
(c) R-Y video amplifier (d) Color Oscillator

8. Which of the following stages has bias from the ACC and color killer circuits? CO4- R
- (a) R-Y demodulator (b) R-Y video amplifier
- (c) Chroma BPA (d) Color oscillator
9. Which system uses a laser light beam for playback? CO5- R
- (a) CED (b) tamex be (c) VHD (d)VLF
10. The cable converter output for the TV receiver is usually on channel CO5- R
- (a) 3 (b) 6 (c) 7 (d) 9

PART – B (5 x 2= 10Marks)

11. Define Resolution. CO1- R
12. What type of circuits is used to separate horizontal and vertical sync pulses? CO2- R
13. Write do you understand by compatibility in TV transmission? CO3- R
14. Discuss the use of ACC amplifier? CO4- R
15. List out the Merits of digital TV receiver? CO5- R

PART – C (5 x 16= 80Marks)

16. (a) With suitable diagrams explain in detail the interlaced scanning procedure. CO-1 U (16)
- Or
- (b) Explain the beam deflection principle in monochrome picture tube. CO-1 U (16)
17. (a) Draw the block diagram of a monochrome television receiver and explain each block in detail. CO-2 U (16)
- Or
- (b) Explain briefly about TV transmission antennas. CO-2 U (16)
18. (a) With necessary diagram explain the Delta-Gun colour picture tube. Describe how purity and convergence are achieved in it. CO-3 U (16)
- Or
- (b) Describe the construction details of a PLL tube and explain how its different from delta gun colour tube. What are astigmatism and errors in it? CO-3 U (16)
19. (a) Draw the simplified block diagram of the NTSC colour receiver and explain each block CO-4 U (16)

Or

- (b) Explain the operation of SECAM encoder and decoder. CO-4 U (16)
20. (a) Describe the following in detail with suitable diagram. CO-5 U (16)
- (i) Cable TV.
 - (ii) VCR.
- 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)

