Question Paper Code: R18A32EC06

R18

ANURAG Engineering College

(An Autonomous Institution)

III B.Tech II Semester Regular/Supplementary Examinations, June/July-2024

TELEVISION ENGINEERING

(ELECTRONICS AND COMMUNICATION ENGINEERING)

Time: 3 Hours **Max.Marks:75**

Section – A (Short Answer type questions) (25 Marks)

Answer All Questions		Course Outcome	B.T Level	Marks
1.	What is Plumbicon camera tube?	CO1	L1	2M
2.	Explain about the interlaced scanning? Why the number of scanning lines in a frame always odd ?	CO1	L2	3M
3.	Mention the picture IF and sound IF in television system.	CO2	L1	2M
4.	Compare Sync pulses and blanking pulses.	CO2	L2	3M
5.	What is the importance of deflection circuit in TV receiver?	CO3	L1	2M
6.	Explain the digital tuning methodology.	CO3	L2	3M
7.	Write short notes on color killer circuit.	CO4	L1	2M
8.	Summarize the short notes on burst separator.	CO4	L2	3M
9.	What is Chroma decoder?	CO5	L1	2M
10.	Compare the features of LED TV over LCD TV.	CO5	L2	3M

Section B (Essay Questions)

Answer all questions, each question carries equal marks. (5 X10M = 50M)

11. A)	Apply noise pulses in negative and positive modulation and compare their impact on picture signal, synchronization, peak power and AGC circuit.	CO1	L3	10M
	OR			
B)	Explain the construction and working of Image orthicon with neat diagram.	CO1	L2	10M
12. A)	Explain and why is FM chosen for transmission of sound signal in TV systems? Why are pre-emphasis and de-emphasis circuits provided at the FM transmitter and receiver respectively?	CO2	L2	10M
	OR			
B)	Draw the block diagram of RF tuner and explain how incoming signals from different stations are translated to common picture IF and sound IF frequencies. Illustrate your answer by choosing carrier frequencies of any channel in the VHF band.	CO2	L3	10M
13. A)	Describe with a block diagram the working principle of a UHF tuner	CO3	L2	10M
	OR			
B)	Draw the block diagram of an AFC circuit that forms part of a reactance FM modulator to stabilize the centre frequency of the master oscillator.	CO3	L3	10M
14. A)	Explain the working of (i) Chrominance amplifier (ii) U and V demodulators	CO4	L2	10M
	OR			

B)	Build the delay method of separating U and V signals in a PAL color system . Why is the function of a color killer circuit in the path of chrominance signal in the receiver.	CO4	L3	10M
15. A)	Illustrate the each functional block of LED TV system with neat diagram and explain the its significance .	CO5	L2	10M
	OR			
B)	Construct the digital TV transmitter circuit and explain the working procedure.	CO5	L3	10M