Question Paper Code: R18A32EC03

R18

ANURAG Engineering College

(An Autonomous Institution)

III B.Tech II Semester Supplementary Examinations, December-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 do you mean by interlaced scanning?	CO1	L1	2M
2.	Classify the frequency bands of TV broadcast channels.	CO1	L2	3M
3.	What are the requirements of IF amplifier?	CO2	L1	2M
4.	Explain why the FM is chosen for transmission of sound signal in TV system?	CO2	L2	3M
5.	What is the main purpose of using VHF tuner?	CO3	L1	2M
6.	Compare the importance of reflector and director in a yagi antenna for TV reception?	CO3	L2	3M
7.	What are various TV broadcasting Standards?	CO4	L1	2M
8.	Explain the PAL –D Color system?	CO4	L2	3M
9.	How do CCD image sensors work?	CO5	L1	2M
10.	Infer the importance of electron tuner in Color TV receiver?	CO5	L2	3M

Section B (Essay Questions)

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

11. A)	Model the cross-sectional view of Monochrome picture tube and explain.	CO1	L3	10M
	OR			
B)	Explain in detail the silicon diode array vidicon camera tube	CO1	L2	10M
12. A)	Explain and describe the separation and processing of sync signals from incoming video signal in TV receiver.	CO2	L2	10M
	OR			
B)	Identify the importance of tuning system in receiver and explain briefly the working of sound system-FM detection of a monochrome TV receiver?	CO2	L3	10M
13. A)	Explain about the TV receiver tuner section and sketch the importance	CO3	L2	10M
	OR			
B)	Build the basic circuit diagram of a sync separator employing a transistor and explain the input and output wave forms.	CO3	L3	10M
14. A)	Explain with a suitable block diagram of encoding process in the PAL color system. Why is the color burst signal transmitted after each scanning line?	CO4	L2	10M
	OR			
B)	Organize the functionalities of NTSC color TV system with block diagram and explain each functional block.	CO4	L3	10M

15. A)	Summarize the each functional block of Digital TV receiver system and mention the packet format.	CO5	L2	10M
	OR			
B)	Construct the model for the reception of signals in colour receiver with the aid of electronic tuner, IF system, decoding section and other mandatory sections required.	CO5	L3	10M