Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC SEMESTER V– EXAMINATION – SUMMER 2017

Subject Code: Audio Video Engineering **Date: 04/05/2017**

Subject Name: X51103

Time: 02.30PM to 05.00PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Draw the elementary block diagram of the monochrome television transmitter & explain the function of the each block.	**04**
	(b)	Draw & explain composite video signal. Also define peak white level, pedestal height.	**05**
	(c)	Define loudness & phon. Calculate the interval, octaves and harmonics for the frequency range of 62.5 Hz to 1 kHz.	**05**
Q.2	**(a)**	List various types of Loud Speakers and describe moving coil type in brief.	**07**
	(b)	Explain the colour difference signals, explain the concept of frequency interleaving with appropriate signal.	**07**
		OR	
	(b)	Draw the block diagram of a VHF tuner, and explain the vestigial sideband correction in brief.	**07**
Q.3	**(a)**	Explain Carbon Microphone in brief.	**07**
	(b)	What is stereophony? Explain stereophonic system and other multi- channel sound system.	**07**
		OR	
Q.3	**(a)**	Explain acoustic design of auditoriums in detail.	**07**
	(b)	Explain Briefly: (i) Woofers and Tweeters. (ii) Sound cards and Mixers.	**07**
Q.4	**(a)**	Explain the principle of interlaced scanning. Define scanning periods & explain the scanning sequence with neat & clean diagram.	**07**
	(b)	How to obtain colour difference signal? Why the colour difference signal (G-Y) is not selected for transmission?	**07**
		OR	
Q.4	**(a)**	Write the advancement in display technology in television system and explain HDTV in brief.	**07**
	(b)	Explain video pattern generator in detail.	**07**
Q.5	**(a)**	Give the comparison in detail for NTSC, PAL and French colour TV System.	**07**
	(b)	Write a brief note on the basics of Video Compression Standards.	**07**
		OR	
Q.5	**(a)**	Draw the block diagram of PAL-D colour receiver.	**07**
	(b)	Write a brief note on Colour TV Pattern Generator.	**07**

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