Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC– SEMESTER V– • EXAMINATION – SUMMER - 2016

Subject Code: X51103 **Date:17/11/2016**

Subject Name: Audio-Video Engineering

Time:10:30 AM to 1:00 PM **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)**	Explain sound reflection, refraction and absorption in detail.	**07**
	(b)	List types of microphone and explain piezoelctric microphone.	**07**
Q.2	**(a)**	Give detail comparision between positive and negative modulation in TV signal transmission.	**07**
	(b)	Explain stereophony in datial.	**07**
		OR	
	(b)	List the public address system components and explain each in detail.	**07**
Q.3	**(a)**	Draw cross-sectional view of camera tube and explain working of each associated components.	**07**
	(b)	Draw block diagramm of television receiver and explain each block in brief.	**07**
		OR	
Q.3	**(a)**	Disccuss adoption of rectangular geometric form for television system. Also justify statement "aspect ratio is chosen 4/3 for televesion system"	**07**
	(b)	Define picture resolution. Also explain vertical and horizontal resolution in detail.	**07**
Q.4	**(a)**	Draw composite video signal and explain below mentioned terms in brief: 1)Pedestal hight 2)Setting the pedestal level 3)Blanking pulse 4)Colour burst	**07**
	(b)	Draw additive colour mixing diagram and explain grassman's law in detail.	**07**
		OR	
Q.4	**(a)**	Justify below statements: 1) Compatibility between monochrome and colour systems is maintained by use of colour-difference signals. 2) (R-Y) and (B-Y) transmission are more sutaible than (G-Y).	**07**
	(b)	List the interference suffered by TV signals and explain each in brief.	**07**
Q.5	**(a)**	Explain RF tuner in brief. Also draw the block diagram of a VHF tuner and explain each block in brief.	**07**
	(b)	Explain sweep generator in detail.	**07**
		OR	
Q.5	**(a)**	List the display technologies and briefly explain each.	**07**
	(b)	Explain HDTV in detail.	**07**

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