Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– VI• EXAMINATION–SUMMER 2015

Subject code:161002 **Date:04/05/2015**

Subject Name: Audio-Video Systems

Time:10:30 am to 01:00 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)**	What are the characteristics of Digital Audio Broadcasting? State advantages & disadvantages of Digital Audio Broadcasting.	**07**
	(b)	Explain Vestigial sideband transmission. Discuss advantages of negative modulation in television system.	**07**
Q.2	**(a)**	Why interlace scanning is applied in TV System? Describe horizontal sync composition in PAL TV system.	**07**
	(b)	Classify microphones according to directional characteristics and explain any two in detail.	**07**
		OR	
	(b)	What is characteristic impedance of loudspeaker? Explain various types of loudspeakers with diagram.	**07**
Q.3	**(a)**	Draw block diagram of monochrome TV receiver and discuss function of each block.	**07**
	(b)	Discuss the following : (i) Image continuity (ii)Aspect ratio.(iii)Brightness ,hue and saturation	**07**
		OR	
Q.3	**(a)**	Draw block diagram of PAL-D decoder and discuss function of each block.	**07**
	(b)	Discuss the following : (i) Post and Pre equalizing pulses (ii) Kell factor (iii) Frequency interleaving.	**07**
Q.4	**(a)**	Explain stereophony and multi channel sound in detail with diagram	**07**
	(b)	State different display technologies and explain any two in detail.	**07**
		OR	
Q.4	**(a)**	Discuss (i) Cross Over network (ii) Audio terminations	**07**
	(b)	Explain encoding of colour difference signals and phase error cancellation in PAL Television system.	**07**
Q.5	**(a)**	Discuss reverberation time and architectural acoustics in detail	**07**
	(b)	Write brief notes on : (i) Inverse Square Law (ii) Audio level metering (iii) Comparison between CD & DVD	**07**
		OR	
Q.5	**(a)**	Classify power amplifiers and explain class B pushpull amplifier.	**07**
	(b)	Discuss the following: (i) Graphic equalizer ,(ii) PMPO, (iii) Crossover Distortion	**07**

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