

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014****Subject Code: 173206****Date: 31-05-2014****Subject Name: Audio and Video Engineering****Time: 02:30 pm - 05:00 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 the Human Ear in detail with the help of neat sketch. **07**
 (b) What is Microphone? Explain the parameters on which quality of Microphone depends. **07**
- Q.2** (a) What is Scanning? Explain the Interlaced Scanning with proper diagram. **07**
 (b) Explain working principle of Electrodynamic Microphone. And also write its application. **07**
- OR**
- (b) Draw the Block diagram of VHF tuner and explain the function of each blocks. **07**
- Q.3** (a) Explain the following terms. **07**
 (i) Brightness (v) Timber
 (ii) Hue (vi) Sone
 (iii) Threshold of Hearing (vii) Phon
 (iv) Pitch
 (b) List the types of Loud speaker. Explain the Moving coil cone type Loudspeaker. **07**
- OR**
- Q.3** (a) Draw and explain the Block diagram of Public Address system. **07**
 (b) What is Luminance and Chrominance signal? How the color difference signal is generated explain in detail. **07**
- Q.4** (a) Write a short note on Crystal Microphone. **07**
 (b) Explain the additive color Mixing technique. **07**
- OR**
- Q.4** (a) Draw and explain picture signal transmission. Also explain vestigial Transmission in detail. **07**
 (b) Draw the Block diagram of Monochrome T.V. Transmitter and explain function of each block. **07**
- Q.5** (a) What is the principle of Magnetic tape recording and reproduction? **07**
 (b) Draw the Block diagram of Monochrome T.V. Receiver and explain function of each block. **07**
- OR**
- Q.5** (a) (i) What is Aspect ratio? Give the reasons for choosing it 4/3. **07**
 (ii) Give the reason why G-Y color difference signal is not used for transmission.
 (b) What is Positive and Negative Modulation? Which type of modulation is used in T.V? why? **07**
