

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (OLD) EXAMINATION – WINTER 2018****Subject Code:161002****Date: 04/12/2018****Subject Name: Audio - Video Systems****Time: 02:30 PM TO 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) Draw and explain cochlea and describe mental process. **07**
(b) Explain following terms with reference to sound: **07**
(1) Timbre (2) Pitch (3) Threshold of pain (4) Reverberation (5) Inverse square law.
- Q.2** (a) Explain the construction and working of moving coil loud speaker. **07**
(b) List the types of microphones and explain any two in detail. **07**
OR
(b) List various requirement of a sound pre-amplifier and explain them in detail. **07**
- Q.3** (a) Draw and explain The Composite Video Signal in detail. **07**
(b) Describe interlaced scanning and justify that "For interlaced scanning the total number of lines in any TV system must be odd. **07**
OR
- Q.3** (a) Draw the block diagram of Monochrome TV Transmitter and explain each block in detail. **07**
(b) Discuss different types of interference suffered by TV channels in detail. **07**
- Q.4** (a) State different display technologies and explain any two in detail. **07**
(b) What is luminance and chrominance signal? State its significance. Also explain separation of U and V color phasors in detail. **07**
OR
- Q.4** (a) Give comparison of PAL Color system and NTSC **07**
(b) Explain the basics of video compression Techniques. **07**
- Q.5** (a) List the different interfaces used for Television technology and explain any two in detail. **07**
(b) Classify Power Amplifiers and explain Class-B Push-Pull Amplifier. **07**
OR
- Q.5** (a) Write short note on: Cable Television Network **07**
(b) Give list of Television Receiver Servicing equipment and explain any one in detail with the help of block diagram **07**
