

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2017****Subject Code: 161002****Date: 08/05/2017****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 is scanning and why it is required? Explain interlaced scanning and state its advantages. Also discuss factors affecting number of scanning lines in a TV system. **07**
- (b)** Describe Cross Over Network and PA System in detail. **07**
- Q.2 (a)** Why Vestigial Side band Transmission is used in TV? Discuss merits and demerits of Positive and Negative Modulation. **07**
- (b)** Draw the block diagram of PAL-D Decoder and explain. **07**
- OR**
- (b)** Draw the block diagram of Monochrome TV Transmitter and explain each block in detail. **07**
- Q.3 (a)** List different types of Microphones used in Audio Video Engineering and explain any two in detail. **07**
- (b)** Draw Composite Video Signal for three consecutive lines and explain each part in detail. **07**
- OR**
- Q.3 (a)** List different types of Loud Speakers and explain any two with neat diagram. **07**
- (b)** Explain the basics of Video compression technique. **07**
- Q.4 (a)** Explain Interference suffered by TV Channels. **07**
- (b)** Define following terms. **07**
- (1) Aspect ratio (2) Pitch (3) The Phone (4) Resolution
(5) Brightness (6) Hue (7) Saturation
- OR**
- Q.4 (a)** With reference to color TV receiver explain the function of following circuits. **07**
- (1) Color killer circuit.
(2) Comb Filter.
(3) Y channel delay line.
- (b)** Discuss reverberation time and architectural Acoustics in detail. **07**
- Q.5 (a)** Write short note on Audio Compression Technique. **07**
- (b)** Classify Power Amplifiers and explain Class-B Push-Pull Amplifier. **07**
- OR**
- Q.5 (a)** Discuss in detail the working principal of LED TV and LCD TV. **07**
- (b)** Compare NTSC, PAL and SECAM Television Standards. **07**
