

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI • EXAMINATION – SUMMER 2013****Subject Code: 161002****Date: 27-05-2013****Subject Name: Audio Video Systems****Time: 10.30 am - 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) Why sound are required to absorb? Also draw and explain the architectural acoustics. **07**

(b) Explain concept of sound and ear. Also draw and explain cochlea with mental process. **07**

Q.2 (a) Draw and explain the single ended versus push pull operation of amplifier. **07**

(b) List the performance standards of a sound amplifier and explain any three of them. **07**

OR

(b) What is sampling? How quantizing is useful? Also draw and explain PCM system in detail. **07**

Q.3 (a) What is stereophony? Draw and explain multi channel sound in detail **07**

(b) List the characteristics of sound that affects the performance of microphone and explain it. **07**

OR

Q.3 (a) List the types of microphones used in sound engineering and explain any two in detail. **07**

(b) List the types of loudspeaker used in sound engineering and explain any two in detail. **07**

Q.4 (a) What is video signal? Draw and explain horizontal and vertical sync in detail. **07**

(b) Draw the block diagram of color TV transmitter and explain each blocks in detail. **07**

OR

Q.4 (a) Draw and explain picture signal transmission. Also explain vestigial transmission in detail. **07**

Q.4 (b) What is luminance and chrominance signal? State its significance. Also explain separation of U and V color phasors in detail. **07**

Q.5 (a) What is video compression ? List the techniques used for video compression and explain any two techniques in detail. **07**

(b) What is HDTV? List different types of display technology used for TV and explain any two of them. **07**

OR

Q.5 (a) List the different interfaces used for Television technology and explain any two in detail. **07**

(b) List the different types of TV systems and standards used and explain any two in detail. **07**
