

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE SEM-VI Regular Examination May 2011**

**Subject code: 161002**

**Subject Name: Audio Video System**

**Date: 17/05/2011**

**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)** Draw the cross section of cochlea. And explain each parts of it. Also explain mental process **07**

**(b)** Draw the circuit diagram of the class B push pull amplifier **07**  
And explain it. Derived the equation for efficiency of it. Also explain all distortion regarding class B push pull amplifier.

**Q.2 (a)** Draw the figure of video tape recording and video reproduction and explain it. Also explain any one techniques of video compression. **07**

**(b)** In a two stage audio amplifier, What amount of gain is required for first stage to get total gain of 70.5dB if the second stage gain is 56 ? **07**

**OR**

**(b)** What is stereophony ? Explain all stereophonic system and other multi-channel sound system. **07**

**Q.3 (a)** List the microphones used in audio devices and explain any two in detail. Also classify all microphones according to their application. **07**

**(b)** Write the principle of loudspeaker and explain it. Also write the characteristics that decides quality of operation of loudspeaker and explain it. Also write significance of enclosure. **07**

**OR**

**Q.3 (a)** Draw the dimension of video signal and explain it in detail Also explain all kind of synchronization in detail . **07**

**(b)** Write characteristics of colours. Also list the mixing techniques of colour and explain it. Which techniques is best? Why? **07**

**Q.4 (a)** Which modulation system is used for picture and sound? Why? Explain it in detail also give the comparison of positive and negative modulation which one is mostly used? Why? **07**

**(b)** List the types of interference take place in Television communication system and explain it. Also give the solution to remove such interferences. **07**

**OR**

**Q.4 (a)** Draw the block diagram of colour or monochrome television receiver and explain it in detail. **07**

**(b)** List the types of picture tubes used for colour reception and explain any one of them. Also give the comparisons of all the picture tubes. **07**

- Q.5 (a)** Classify the Advance Digital Television system and explain it with required figure. **07**
- (b)** What is LCD ? Explain all types of display technology used in LCD and explain it. Also give its comparisons. **07**

**OR**

- Q.5 (a)** List the types of Television systems and standard used worldwide and explain it in detail **07**
- (b)** Explain all kind of problem occurred in picture tube and gives its solution that can help during servicing. **07**

\*\*\*\*\*

*HowToExam.com*