

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PDDC SEM-V Examination-Nov-2011**

**Subject code: X51103****Date: 24/11/2011****Subject Name: Audio Video Engineering****Time: 2.30 pm -5.00 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 Acoustics? Explain Architectural Acoustics in detail. **07**  
(b) Draw Circuit diagram of Transformer Coupled amplifier and explain it. Derived the equation for efficiency of it. **07**

- Q.2** (a) Explain Characteristics, Advantages and Disadvantages of Digital Audio Broadcasting **07**  
(b) Explain Digital Filtering Techniques in detail. Also Explain Comparison of Analog and Digital Filters **07**

**OR**

- (b) Explain Inverse Square law in detail **07**

- Q.3** (a) List out Various types of microphone used in audio devices and explain any two in detail. **07**  
(b) List out Various types of Loud speakers and explain working principle of loud speaker. **07**

**OR**

- Q.3** (a) Explain Various scanning in Television system. What do you understand by Interlaced scanning? **07**  
(b) Explain Terms: (1)Contrast (2)Brightness (3)Resolution (4)Aspect Ratio **07**

- Q.4** (a) What do you understand by positive and negative modulation? Explain it. **07**  
(b) Explain Vestigial sideband transmission in detail **07**

**OR**

- Q.4** (a) State the requirement of Video Amplifier **07**  
(b) Short note: Comparison between CRT and Plasma Display **07**

- Q.5** (a) Draw Block Diagram of monochrome television receiver and explain it in detail **07**  
(b) Principle of U and V colour phasor separation **07**

**OR**

- Q.5** (a) Draw Block Diagram of Colour television receiver and explain it in detail **07**  
(b) Explain NTSC Coder and Decoder **07**

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