

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VIII • EXAMINATION – SUMMER • 2015**

**Subject Code: 183201**

**Date: 11/05/2015**

**Subject Name: Multimedia Computing**

**Time: 10.30AM-01.00PM**

**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)** Define multimedia computing. List applications of multimedia computing. **07**  
Explain image compression and reconstruction with suitable diagram
- (b)** Explain lossy and lossless image compression. **07**
- Q.2 (a)** Draw and explain steps for Huffman coding with the help of example **07**  
**(b)** Describe the audio compression with proper diagrams **07**
- OR**
- (b)** Describe the video compression with proper diagrams **07**
- Q.3 (a)** Answer the following **07**  
1) Static Huffman code 2) Dynamic Huffman code 3) Arithmetic Huffman code
- (b)** What is image compression? Explain JPEG compression technique in details. **07**
- OR**
- Q.3 (a)** What is text compression? Explain the effect of dictionary size and size of the text file being encoded on amount of compression. **07**  
**(b)** What are the measurements qualities of reconstructed image. **07**
- Q.4 (a)** Differentiate static and adaptive dictionary coding scheme in details. **07**  
**(b)** Explain the concept of sliding window scheme used in compression. **07**
- OR**
- Q.4 (a)** What is Quantization? Why do we do quantization in JPEG compression? **07**  
**(b)** Explain LZW Coding. **07**
- Q.5 (a)** Explain following terms. **07**  
1) Adaptive Predictive Coding 2) Linear Predictive Coding  
3) Code-Excited Coding
- (b)** Explain Entropy And Source Encoding for text compression. **07**
- OR**
- Q.5 (a)** Explain Elements Of Multimedia Communication Systems. **07**  
**(b)** Give Challenges Involved With Multimedia Communication. And explain types of multimedia. **07**

\*\*\*\*\*