Subject Code: 183201

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE - SEMESTER-VIII EXAMINATION - SUMMER 2016**

Date: 05/05/2016

Ti	me: 10 structi 1.	Attempt all questions.  Make suitable assumptions wherever necessary.	70
Q.1	(a)	Explain elements of multimedia communication system.	07
	<b>(b)</b>	Describe lossy and lossless image compression.	07
Q.2	(a)	What are the measurements qualities of reconstructed image?	07
	<b>(b)</b>	Briefly explain JPEG image compression (Encoder and Decoder). Explain each	07
		stage of JPEG compression.	
		OR	0.
0.4	<b>(b)</b>	Explain Huffman coding with example.	07
Q.3	(a)	Write a short note on static and dynamic Huffman coding.	07
	<b>(b)</b>	Explain Arithmetic coding with example.	07
Q.3	(a)	OR Explain following terms:	07
		(a) Adaptive Predictive Coding (b) Linear Predictive Coding	
		(c) Code-Excited Coding	
	<b>(b)</b>	Briefly explain redundancies found in data compression.	07
Q.4	(a)	With diagram explain MPEG audio coder.	07
	<b>(b)</b>	With the aid of diagram, Explain frequency masking and temporal masking.	07
		OR	
Q.4	(a)	Explain the following types of compressed frame:	07
		(a) I-frame (b) P-frame (c) B-frame	
	<b>(b)</b>	Write a short note on video compression standards.	07
Q.5	(a)	Use LZW to encode the string "alf eats alfalfa". Show the encoder output and	07
		the new entries added by it to the dictionary.	
	<b>(b)</b>	Write a short note on linear predictive coding.	07
Q.5	(a)	<b>OR</b> Explain different applications of multimedia networks.	07
~.~	(b)	Explain motion estimation and compensation for video compression.	07
		2 motion communion and compensation for race compression.	0 /

\*\*\*\*\*\*