Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER– III • EXAMINATION – SUMMER 2015

Subject Code: 734104 **Date: 02/05/2015**

Subject Name: Digital Watermarking and Steganography

Time: 2:30 pm to 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)**	Write a short note on importance of Digital Watermarking and importance of Steganography.	**07**
	(b)	Explain briefly how the Digital Watermarking is used in owner Identification and Transaction Tracking.	**07**
Q.2	**(a)**	Give difference between Watermarking and Steganography.	**07**
	(b)	Give the classification of Watermarking base on characteristics and explain any two classifications.	**07**
		OR	
	(b)	Write short note on: i. Copyright protection watermarks ii. Fingerprinting watermarks iii. Device control watermarks	**07**
Q.3	**(a)**	Define the Chaotic Map. Explain how it is used in Digital Watermarking.	**07**
	(b)	How error correction codes improve the Robustness in digital watermarking? Explain briefly.	**07**
		OR	
Q.3	**(a)**	Explain SPIHT Algorithm.	**07**
	(b)	Write a short note on: Spatial Domain Watermarking.	**07**
Q.4	**(a)**	With help of algorithm, give the brief idea about Block Based Fragile Watermarking.	**07**
	(b)	Explain the purpose of Robust Watermarking.	**07**
		OR	
Q.4	**(a)**	Briefly explain Watermarking attacks due to Geometric Transformation.	**07**
	(b)	Described four benchmarking tools for Image Watermarking.	**07**
Q.5	**(a)**	Give the idea about Technical Steganography and Linguistic Steganography in detail.	**07**
	(b)	Explain the use of IQM-Based steganalytic system. Give its types and introduce any one in detail.	**07**
		OR	
Q.5	**(a)**	Give the application of Steganography.	**07**
	(b)	How the Support Vector Machine is used in Steganalysis? Explain.	**07**

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