GUJARAT TECHNOLOGICAL UNIVERSITY
BE (Minor) - SEMESTER– VI EXAMINATION – WINTER 2023

Subject Code: 116AH01   **Date: 07-02-2024**
Subject Name: Steganography and Digital Watermarking
Time: 02:30 PM TO 05:00 PM   **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	(a)	What is the concept of digital water marking?	03
	(b)	List any four properties of steganographic system.	04
	(c)	Explain techniques of steganography in detail.	07
Q.2	(a)	What is purpose of steganalysis?	03
	(b)	What is masking and filtering in steganography?	04
	(c)	Explain Basic life cycle model of Steganography in detail.	07
		OR	
	(c)	Explain digital watermarking life cycle phases.	07
Q.3	(a)	What is Stegosuite?	03
	(b)	List out five types of steganography?	04
	(c)	Write down the difference between least significant bit insertion and modification.	07
		OR	
Q.3	(a)	How steganography is used to deliver attacks?	03
	(b)	Define the terms 1.Steganography	04
		2.Steganalysis	
	(c)	When we call digital watermarking as "fragile" and "robust". Explain in detail.	07
Q.4	(a)	What are watermarks and their purpose?	03
	(b)	Define 1.Perceptible	04
		2.Imperceptible water marking.	
	(c)	Explain in detail about wavelet watermarking technique.	07
		OR	
Q.4	(a)	Describe reversible data hiding?	03
	(b)	Summarize the uses of steganography.	04
	(c)	Differentiate steganography and cryptography.	07
Q.5	(a)	List features of Digital watermarking?	03
	(b)	What are the advantages of digital water marking?	04
	(c)	Is watermarking useful in relational database? if yes justify your answer.	07
		OR	
Q.5	(a)	What is image watermarking?	03
	(b)	Does steganography uses key? justify your answer.	04
	(c)	Write down applications of watermarking technique.	07

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