

GUJARAT TECHNOLOGICAL UNIVERSITY

BE(MINOR)- SEMESTER-VI EXAMINATION – SUMMER 2025

Subject Code:116AH01

Date:10-06-2025

Subject Name:Steganography and Digital Watermarking

Time:10:30 AM TO 01:00 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) Differentiate Steganography vs. Cryptography vs. Information Security.	03
	(b) List Types of Steganography technique.	04
	(c) What is Image Steganography and explain the following in short.	07
	1.Messeage-That can use Data mask	
	2.Cover-Image	
	3.Stego-Image	
	4.Stego-Key	
Q.2	(a) What is Steghide?	03
	(b) How Steganography differs from Obfuscation?	04
	(c) List Steganography tools and explain its usage briefly.	07
	OR	
	(c) List Applications of Stegnography and explain	07
Q.3	(a) Write three essential elements of steganography?	03
	(b) Describe Text Steganography.	04
	(c) Explain following	07
	1.Detecting Steganography	
	2.Real-World Attacks that used steganography	
	3. Mitigating steganography based attacks.	
	OR	
Q.3	(a) Writing with invisible ink will be Considered as Steganography technique. Isn't?	03
	(b) What is Audio Steganography?	04
	(c) Connect Artificial Intelligence and Steganography.	07
Q.4	(a) What is openPuff?	03
	(b) List four Applications of Digital Watermarking	04
	(c) Explain Least Significant bit steganalysis using primary sets.	07
	OR	
Q.4	(a) What is Xiao Steganography?	03
	(b) List types Digital Watermarking and explain in short.	04
	(c) Explain Following Steganography Technique in short:	07
	1. Secure Cover Selection	
	2. LSB	
	3. Palette-Based Technique	

- Q.5** (a) What is Digital Watermarking? **03**
(b) Explain Robustness in digital water marking **04**
(c) Explain Digital Watermarking Life cycle. **07**
- OR**
- Q.5** (a) Discuss Fragile and Robust Watermarks **03**
(b) Explain security and capacity in digital watermarking. **04**
(c) Discuss Advantage and Disadvantage of Digital Watermarking in detail. **07**
