

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE MINOR - SEMESTER-VI EXAMINATION – SUMMER 2024

Subject Code:116AH01

Date:27-05-2024

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) Explain following terms: 1. Detection 2. Distortion 3. Cryptapix	03
(b) List techniques of steganography in brief.	04
(c) Explain Pure, Secret key and public key steganography in detail with suitable example.	07
Q.2 (a) List applications of digital watermarking.	03
(b) Write a note on spread spectrum.	04
(c) How error correction codes improve the Robustness in digital watermarking? Explain briefly.	07
OR	
(c) Which algorithms are used in steganography? Explain in detail.	07
Q.3 (a) What are advantages of Digital watermarking?	03
(b) Explain the purpose of Robust Watermarking.	04
(c) Explain Least bit significant bit embedding with example.	07
OR	
Q.3 (a) List types of steganography.	03
(b) What are the advantage and disadvantages of digital water marking?	04
(c) What is Watermarking? Differentiate steganography and Watermarking in detail with suitable example.	07
Q.4 (a) Described any three benchmarking tools for digital watermarking.	03
(b) Explain Watermarking attacks due to Geometric Transformation.	04
(c) List and explain Spatial domain methods.	07
OR	
Q.4 (a) What are active and passive Steganalysis?	03
(b) Explain image steganography.	04
(c) What is LSB Embedding? Explain LSB Steganalysis using primary sets.	07
Q.5 (a) Explain Fragile watermarking in brief.	03
(b) Compare cryptography and steganography.	04
(c) Explain watermark security and authentication in detail.	07
OR	
Q.5 (a) Write difference between public and invisible watermarks.	03
(b) Write a note on recent trends in watermarking.	04
(c) Write a short note on importance of Digital Watermarking and importance of Steganography.	07
