

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech. IV Year I Semester Regular Examinations February-2024**

**DIGITAL WATERMARKING**

CSE (Internet of Things and Cyber security Including Block Chain Technology)

**Time: 3 Hours**

**Max. Marks: 60**

(Answer all Five Units 5 x 12 = 60 Marks)

**UNIT-I**

- |   |   |     |    |    |
|---|---|-----|----|----|
| 1 | a Define Steganography. List out watermarking Applications. | CO1 | L1 | 6M |
|   | b Explain briefly importance of digital watermarking.       | CO1 | L2 | 6M |

**OR**

- |   |   |     |    |    |
|---|---|-----|----|----|
| 2 | a Explain about history of watermarking.                  | CO1 | L1 | 6M |
|   | b Differentiate steganography and watermarking in detail. | CO1 | L2 | 6M |

**UNIT-II**

- |   |   |     |    |    |
|---|---|-----|----|----|
| 3 | a Define Informed Embedding. List and explain various methods used in informed embedding. | CO2 | L2 | 6M |
|   | b Explain briefly watermarking with blind embedders.                                      | CO2 | L2 | 6M |

**OR**

- |   |   |     |    |    |
|---|---|-----|----|----|
| 4 | a Explain about Watermarking with informed embedding.             | CO2 | L2 | 6M |
|   | b Differentiate informed embedding and informed coding in detail. | CO2 | L2 | 6M |

**UNIT-III**

- |   |   |     |    |     |
|---|---|-----|----|-----|
| 5 | Define Fidelity and Quality type of perceptibility.                 | CO3 | L1 | 12M |
|   |   |     |    |     |
|   | <b>OR</b>   |     |    |     |
| 6 | a Describe General form of a perceptual model.                      | CO3 | L2 | 6M  |
|   | b Explain about Perceptual Human Evaluation Measurement Techniques. | CO3 | L3 | 6M  |

**UNIT-IV**

- |   |   |     |    |     |
|---|---|-----|----|-----|
| 7 | Explain Security requirements in watermarking.      | CO5 | L2 | 12M |
|   |   |     |    |     |
|   | <b>OR</b>   |     |    |     |
| 8 | a Describe Block-Wise Content Authentication.       | CO5 | L2 | 6M  |
|   | b Explain about Sample-Wise Content Authentication. | CO5 | L2 | 6M  |

**UNIT-V**

- |    |  |     |    |     |
|----|--|-----|----|-----|
| 9  | Explain Steganography communication in detail.             | CO6 | L2 | 12M |
|    |  |     |    |     |
|    | <b>OR</b>  |     |    |     |
| 10 | a Describe Cachin's Definition of Steganographic Security. | CO6 | L2 | 6M  |
|    | b Explain about Statistics Preserving Steganography.       | CO6 | L2 | 6M  |

\*\*\* END \*\*\*

