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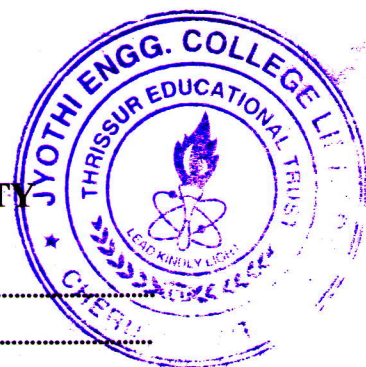
THIRD SEMESTER M.TECH. DEGREE EXAMINATION DECEMBER 2021

Branch: Electronics and Communication Engineering   **Specialization: CESP & ECE**

08EC7221(D) INFORMATION HIDING AND DATA ENCRYPTION

(Common to Communication Engineering and Signal Processing and Electronics & Communication Engineering)

Time: 3 hours   Max. marks: 60

Answer all six questions.

Modules 1 to 6: Part 'a' of each question is compulsory and answer either part 'b' or part 'c' of each question.

Q. No.	Module 1	Marks
1. a	Briefly describe about information security.	3

Answer b or c

b	Describe Digital Rights Management and copy right protection.	6
c	Explain different classifications of watermarking and steganography.	6

Q. No.	Module 2	Marks
2. a	Define data hiding capacity, robustness and imperceptibility.	3

Answer b or c

b	Discuss in detail about watermarking with side information.	6
c	Explain fragile watermark and benchmark for watermarking.	6

Q. No.	Module 3	Marks
3. a	Briefly describe additive method of watermarking in spatial domain.	3

Answer b or c

b	Explain spread spectrum based methods of watermarking.	6
c	Explain digital watermarking using discrete wavelet transform.	6

Q. No.	Module 4	Marks
4. a	Briefly explain recovery of embedded data of watermarking.	3

Answer b or c

b	Explain detection theoretic and information theoretic approach in watermark detection.	6
c	Explain quality evaluation of data hidden images.	6

Q. No.	Module 5	Marks
5. a	Explain quality evaluation with and without reference.	4

Answer b or c

b	Explain statistical based techniques for staganalysis.	8
c	Explain different steganalysis techniques.	8

Q. No.	Module 6	Marks
6. a	Briefly explain cryptography.	4

Answer b or c

b	Explain in detail about embedding and extraction of watermarks.	8
c	Explain the application of visual cryptography on embedding and extraction of watermark in binary images.	8