# 20IT32P2 - CRYPTOGRAPHY AND NETWORK SECURITY LABORATORY

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| Course Category: | Professional Core | Credits: | 1.5 |
| Course Type: | Practical | Lecture-Tutorial-Practical: | 0-0-3 |
| Prerequisite: | Knowledge in Computer Fundamentals and Basic Mathematical Fundamentals. | Sessional Evaluation:  Univ. Exam Evaluation:  Total Marks: | 40  60  100 |
| Objectives: | * To learn and practice the essentials of Encryption and Decryption Procedure of Cryptography. | | |

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| Course Outcomes | Upon successful completion of the course, the students will be able to: | |
| CO1 | Understand the basics of Encryption and Decryption Procedure of Cryptography. |
| Course Content | 1. Write a Program for Caesar Cipher in Substitution Techniques. 2. Write a Program for Playfair Cipher in Substitution Techniques. 3. Write a Program for Hill Cipher in Substitution Techniques. 4. Write a Program for One-Time pad in Substitution Techniques. 5. Write a Program for RSA. 6. Write a Program for S-DES Algorithm. 7. Write a Program for Diffie-Hellman Algorithm. 8. Write a Program for El Gamal Cryptosystem. | |
| Text Books &  Reference  Books | **TEXT BOOKS:**   1. Cryptography and Network Security: Principles and Practice-William Stallings, 6th Edition, Prentice Hall   **REFERENCE BOOKS:**   1. Network Security Essentials (Applications and Standards) by William Stallings, Pearson Education. 2. Fundamentals of Network Security, by Eric maiwald. 3. Principles of Information Security by Whitman, Thomson. 4. Network Security - The Complete Reference by Robert Bragg | |

**CO-PO Mapping:** 3-High Mapping, 2-Moderate Mapping, 1-Low Mapping, - -Not Mapping

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|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **CO** | 2 | - | 3 | - | 3 | - | 1 | 3 | - | - | 2 | 2 |