

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

B.Tech IV Year I Semester Supplementary Examinations June-2024

CRYPTOGRAPHY & NETWORK SECURITY

(Computer Science & Information Technology)

Time: 3 Hours

Max. Marks: 60

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

UNIT-I

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|---|--|-----|----|----|
| 1 | a Illustrate different types of Security Attacks and Services in Detail. | CO3 | L2 | 6M |
| | b List and briefly define the fundamental security design principles. | CO1 | L1 | 6M |

OR

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|---|--|-----|----|----|
| 2 | a Compare Substitution and Transposition techniques. | CO1 | L2 | 6M |
| | b Explain about security approaches. | CO3 | L2 | 6M |

UNIT-II

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|---|--|-----|----|----|
| 3 | a Formulate the decryption and encryption using RSA algorithm with $p=3$
$q=11$ $e=7$ and $N=5$. | CO2 | L6 | 6M |
| | b List out the attacks to RSA and define each. | CO1 | L1 | 6M |

OR

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|---|---|-----|----|----|
| 4 | a Discover the working principles of simple DES with an example. | CO2 | L3 | 6M |
| | b What is the difference between block cipher and stream cipher ? | CO1 | L1 | 6M |

UNIT-III

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|---|--|-----|----|----|
| 5 | a Describe any one method of efficient implementation of HMAC. | CO1 | L2 | 6M |
| | b What types of attacks are addressed by message authentication? | CO1 | L1 | 6M |

OR

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|---|--|-----|----|----|
| 6 | a Explain X.509 Authentication Services. | CO2 | L2 | 6M |
| | b Explain the public key infrastructure. | CO3 | L2 | 6M |

UNIT-IV

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|---|---|-----|----|----|
| 7 | a What is the basic building block of an 802.11 WLAN? | CO5 | L1 | 6M |
| | b List some security threats related to mobile devices. | CO1 | L1 | 6M |

OR

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|---|--|-----|----|----|
| 8 | a Evaluate the different protocols of SSL. Explain Handshake protocol in detail. | CO4 | L5 | 6M |
| | b What is the difference between a TLS connection and a TLS session? | CO1 | L1 | 6M |

UNIT-V

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|---|--|-----|----|----|
| 9 | a Elaborate different categories of IPsec documents. | CO6 | L6 | 6M |
| | b List and briefly define different categories of IPsec documents. | CO1 | L1 | 6M |

OR

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|----|---|-----|----|----|
| 10 | a Describe the Encapsulating security payload. | CO6 | L5 | 6M |
| | b List and briefly describe some benefits of IPsec. | CO1 | L1 | 6M |

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