

R13

Code No: 126AQ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, May - 2017

INFORMATION SECURITY

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 75

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) Give various security services. [2]
- b) What are the principles of security? [3]
- c) Define Stream ciphers? [2]
- d) Discuss about Blowfish. [3]
- e) What is Biometric authentication? [2]
- f) Discuss various Digital signatures. [3]
- g) Give features of Authentication Header. [2]
- h) Explain IP Security. [3]
- i) How to manage the password? [2]
- j) Discuss cross site scripting vulnerability. [3]

PART - B**(50 Marks)**

- 2.a) Discuss in detail about various types of Security attacks with neat diagrams.
- b) Give a model for Network Security with neat diagram. [5+5]

OR

- 3.a) What is symmetric key cryptography? Discuss its advantages and limitations.
- b) Explain various substitution techniques with suitable examples. [5+5]

- 4.a) Explain DES algorithm with suitable examples. Discuss its advantages and limitations.
- b) What is Elliptic Curve Cryptography (ECC)? Discuss ECC algorithm with neat diagram. [5+5]

OR

- 5.a) Explain RSA algorithm with suitable examples.
- b) Write a short note on RC4. [5+5]

- 6.a) Write a short note on knapsack algorithm.
- b) Give various Hash Functions. Discuss secure hash algorithm with suitable examples. [5+5]

OR

- 7.a) Discuss HMAC and CMAC.
- b) Write a short note on servers. [5+5]

- 8.a) Write a short note on Pretty Good Privacy.
b) Give IP Security architecture with neat diagram. [5+5]
- OR**
- 9.a) Write a short note on S/MIME.
b) Discuss in detail encapsulating security payload. [5+5]
- 10.a) What is Intrusion? Discuss Intrusion detection system with neat diagram.
b) Discuss the need of Secure Socket Layer. [5+5]
- OR**
- 11.a) Write a short note on firewall design principles and types of firewalls.
b) Discuss in detail about secure electronic transaction. [5+5]

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