



10CS/IS835

**Eighth Semester B.E. Degree Examination, Dec.2023/Jan.2024**  
**Information and Network Security**

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting atleast TWO questions from each part.

**PART – A**

- 1 a. With a neat diagram, explain briefly the major steps in contingency planning. (10 Marks)  
b. Define policy and explain the issues – specific security policy. (10 Marks)
- 2 a. Explain any two firewall architecture, with neat diagrams. (10 Marks)  
b. Explain the implementation of Virtual Private Networks (VPN) in different method. (10 Marks)
- 3 a. Describe the different IDPS detection methods. (10 Marks)  
b. What is Honey pots? List the advantages and disadvantages of using honey pots. (05 Marks)  
c. Define the following terms related to IDS : (05 Marks)  
i) Alert  
ii) False attack stimulus  
iii) False negative  
iv) False positive  
v) True attack stimulus.
- 4 a. Define the following terms with respect to cryptography. (06 Marks)  
i) Algorithm  
ii) Steganography  
iii) Cipher  
iv) Work factor  
v) Key space  
vi) Plain\_text. (08 Marks)  
b. Describe any four attacks on a cryptosystems. (06 Marks)  
c. Explain Vernam Ciphere with an example.

**PART – B**

- 5 a. Briefly explain the four types of active attacks normally encountered in security attacks. Also, distinguish between active and passive attacks. (12 Marks)  
b. With the help of a neat diagram explain the general format of a X-509 public key certificate. (08 Marks)
- 6 a. Explain the different MIME content types. (10 Marks)  
b. Describe the steps involved in providing authentication and also confidentiality by PGP, with suitable illustration. (10 Marks)
- 7 a. With a neat diagram, discuss the basic combinations of security associations. (10 Marks)  
b. Mention the important features of Oakely algorithm. (05 Marks)  
c. Describe the benefits of IPSec. (05 Marks)
- 8 a. Explain the handshake protocol action in SSL. (10 Marks)  
b. Explain the key features of SET. (04 Marks)  
c. Discuss the SSL protocol stack. (06 Marks)

**CMRIT LIBRARY**  
BANGALORE - 560 037

\*\*\*\*\*

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.