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USN | | | | | | | | | | **10CS/IS835**

Eighth Semester B.E. Degree Examination, July/August 2022
Information and Network Security

Time: 3 hrs.   Max. Marks:100

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

PART – A

1   a.   Distinguish between policies, standards and practices.   (06 Marks)
    b.   Explain enterprise specific and issue specific security policies.   (06 Marks)
    c.   Describe the components of contingency planning With a neat diagram.   (08 Marks)

2   a.   Explain the different firewall processing mode.   (10 Marks)
    b.   Describe the different methods used in protecting remote connections.   (10 Marks)

3   a.   What is an IDS? Explain the advantages and disadvantages of network-based IDS.
                                                                                       (06 Marks)
    b.   Discuss the different organizational requirement and constraints while selecting IDS.
                                                                                       (06 Marks)
    c.   Explain Honeypots, Honeynets and Padded cell systems.   (08 Marks)

4   a.   Describe substitution ciphers and transposition ciphers with example.   (06 Marks)
    b.   Discuss various attacks on crypto systems.   (06 Marks)
    c.   Explain the different cryptographic tools available in cryptography.   (08 Marks)

PART – B

5   a.   Differentiate between passive attacks and active attacks.   (06 Marks)
    b.   Explain the model for networks security with neat diagram.   (06 Marks)
    c.   Describe the different specific security mechanisms and pervasive security mechanisms
         X.509 security services.   (08 Marks)

6   a.   What is PGP? Explain the three types of PGP cryptographic functions with aid of diagrams.
                                                                                       (10 Marks)
    b.   Explain the different MIME content types. Also explain cryptographic algorithms used in
         S/MIME.   (10 Marks)

7   a.   What are the benefits and applications of IPsec? Explain.   (06 Marks)
    b.   Give the basic combination of security associations.   (06 Marks)
    c.   Explain the encapsulating security payload in detail.   (08 Marks)

8   a.   Explain SSL architecture along with SSL record protocol.   (10 Marks)
    b.   What is SET? Explain SET participants with neat diagram.   (10 Marks)

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