



10CS/IS835

Eighth Semester B.E. Degree Examination, June/July 2024

Information and Network Security

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Define policy. What are the criteria to meet a policy to be effective and enforceable, with a neat diagram? (10 Marks)
b. Explain the Pipkin's three categories of incident indicators. (10 Marks)
- 2 a. Explain the screened subset firewalls (with DMZ) with a neat block diagram. (07 Marks)
b. List and briefly, explain three subsets of packet filtering firewalls. (03 Marks)
c. Briefly explain the processing modes of firewalls. (10 Marks)
- 3 a. Describe signature based IDPS and statistical anomaly based IDPS. (10 Marks)
b. Bring out the difference between active vulnerability scanner and passive vulnerability scanner. (04 Marks)
c. What are honey pots, honey nets and padded cell systems? (06 Marks)
- 4 a. Explain different categories of attacks on cryptosystems. (10 Marks)
b. What is Vernam cipher? Explain with example. (04 Marks)
c. Bring out the difference between symmetric and asymmetric encryption. (06 Marks)

PART – B

- 5 a. Explain the network security model with a neat diagram. (08 Marks)
b. Explain X.509 strong authentication procedures. (06 Marks)
c. Bring out the difference between Kerberos version 4 and version 5. (06 Marks)
- 6 a. Explain the process of transmission and reception of PGP messages with a diagram. (10 Marks)
b. Explain the different MIME content types. (10 Marks)
- 7 a. With a neat diagram, explain the general structure of IPSec authentication header. Describe the anti reply service. (10 Marks)
b. Mention the important features of Oakley algorithm. (05 Marks)
c. Explain the format of an ESP packet in IP Security. (05 Marks)
- 8 a. What is SET? Discuss the requirement and key features of SET. (10 Marks)
b. Explain the Transport layer security. (10 Marks)

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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.