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10CS/IS835

Eighth Semester B.E. Degree Examination, June/July 2023
Information and Network Security

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Explain ISSP and SysSP in detail. (08 Marks)
b. Explain design of security architecture in detail with a neat diagram. (06 Marks)
c. Explain business continuity planning process in detail with an example. (06 Marks)
- 2 a. What is firewall? Explain different firewall rules in detail. (08 Marks)
b. Explain the following firewall architectures with neat diagram:
(i) Dual-Homed Host Firewall (08 Marks)
(ii) Screened Subnet Firewall (with DM2) (04 Marks)
c. Write a note on content filters. (04 Marks)
- 3 a. Explain different types of IDP system. (10 Marks)
b. Define Honey Pot. List its advantages and disadvantages. (10 Marks)
- 4 a. Explain transposition cipher method with an example. (08 Marks)
b. Explain any three types of cryptographic tools. (12 Marks)

PART – B

- 5 a. Explain different types of active attacks and passive attacks with neat diagrams. (10 Marks)
b. With a neat diagram, explain a model for network security in detail. (10 Marks)
- 6 a. Explain the different types of PGP services. (06 Marks)
b. With a neat diagram, explain the general format of PGP message. (06 Marks)
c. Explain functions and cryptographic algorithms used in S/MIME functionality. (08 Marks)
- 7 a. With a neat diagram, explain IPSec Architecture in detail. (10 Marks)
b. Write a note on Encapsulating Security Payload (ESP). (10 Marks)
- 8 a. Explain SSL protocol stack and discuss session and connection state parameters. (10 Marks)
b. Explain the requirements and features of Secure Electronic Transaction (SET). (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.