



10CS/IS835

Eighth Semester B.E. Degree Examination, Jan./Feb. 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. Define Policy, Standards, Practices in the content of information security. Draw a schematic diagram depicting the inter relationship between the above. (06 Marks)
b. Explain components of contingency planning with neat diagram. Also draw the figure for contingency planning timeline. (07 Marks)
c. Discuss various stages in a incident response planning strategy. (07 Marks)
- 2 a. What is firewalls? List the types of firewalls categorized by firewall architecture. Explain a screenhost firewall with neat diagram. (10 Marks)
b. Explain transport mode and tunnel mode VPN technology with suitable diagram. (10 Marks)
- 3 a. How does signature based IDPS differ from a behavior based IDPS? (06 Marks)
b. With the help of schematic diagram, explain the fully distributed control strategy implementation of IDS. (06 Marks)
c. Explain strengths and limitations of intrusion detection and prevention system. (08 Marks)
- 4 a. Explain symmetric and asymmetric encryption algorithm with example. (08 Marks)
b. Explain different attacks on crypto systems. (08 Marks)
c. Define the following terms with relation to cryptography :
(i) Algorithm (ii) Link encryption
(iii) Work factor (iv) Stegonography. (04 Marks)

PART – B

- 5 a. Discuss passive and active attacks with example. (06 Marks)
b. What are different management functions of PKIX? (06 Marks)
c. Explain the Kerberos version 5. (08 Marks)
- 6 a. Explain the steps involved in providing authentication and confidentiality by PGP with example. (10 Marks)
b. Explain the different MIME content types. (10 Marks)
- 7 a. What are disadvantages of Diffie Hellman key exchange algorithm? How they are overcome by Oakley key protocol. (06 Marks)
b. Describe the transport and tunnel mode used for IPsec AH authentication bringing out their scope relevant to IPV4. (10 Marks)
c. Mention the application of IPsec. (04 Marks)
- 8 a. Explain SSL record protocol. (10 Marks)
b. What are key features of SET? (04 Marks)
c. Explain the construction of dual signature in SET with a diagram. Also show its verification by the merchant and the bank. (06 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.