

Sixth Semester B.C.A. Degree Examination, April/May 2019

(CBCS Scheme)

Computer Science

CRYPTOGRAPHY AND NETWORK SECURITY

Time : 3 Hours]

[Max. Marks : 90

Instructions to Candidates : Answers ALL the Sections are compulsory.

SECTION – A

Answer any **TEN** of the following.

(10 × 1 = 10)

1. Define cryptography.
2. Define computer security.
3. What do you mean by digital signature?
4. Define certificate authority.
5. Expand MAC.
6. Define issuer.
7. Define DOI.
8. What do you mean by key management?
9. What is a replay attack?
10. What is a security associations?
11. Define masquerader.
12. Define audit record.

SECTION – B

Answer any **FIVE** of the following.

(5 × 3 = 15)

13. Differentiate between active attacks and passive attacks.
14. Explain steganography.
15. Write a note on two-way authentication.

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16. Write a note on SSL handshake protocol message types.
17. Mention any three benefits of IP security.
18. Identification of different types of network cables, devices and installation procedures.
19. What do you mean by honey pots?

SECTION – C

Answer any **SIX** of the following.

(6 × 5 = 30)

20. Write a note on model for network security.
21. Explain X-509 formats.
22. What is S/MIME? Explain its header fields.
23. Write a note on SET components.
24. Explain the various SSL message formats in detail.
25. Write a note on IPSEC authentication header.
26. Explain the configuration of network devices, hub, switch of routers.
27. What is a firewall? Explain its various types.

SECTION – D

Answer any **FIVE** of the following.

(5 × 7 = 35)

28. Explain the various types of cryptographic techniques with a neat labelled diagram. (7)
29. What is Kerberos? Explain in brief the overview of Kerberos. (7)
30. Explain SSL architecture with a neat labelled diagram. (7)
31. Explain the various SET transaction types. (7)
32. Explain IP security architecture and services. (7)
33. Explain IPV4 and IPV6 protocols with frame formats. (7)
34. Explain the various types of intrusion detection techniques. (7)