BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, NOVEMBER 2024
2022 ADMISSIONS REGULAR
B.C.A SEMESTER V - CORE COURSE (COMPUTER APPLICATIONS)
BCA5B18B18 - Cryptography Fundamentals

Time : 3 Hours   **Maximum Marks : 80**

Part A

I. Answer any Ten questions. Each question carries 2 marks   **(10x2=20)**

1. Write a note on cryptosystem.

2. Discuss Auto key cipher.

3. Name the categories of the Substitution cipher.

4. Write a short note on Non-repudiation.

5. Explain the importance of digital signature.

6. Write the security features of HMAC over SHA-1.

7. Write the important aspects of key management.

8. Explain Trusted Authority.

9. How does TLS affect web application performance?

10. Briefly explain Kerberos realm.

11. Explain the generic model of network security.

12. Explain Application level gateway.

Part B

II. Answer any Six questions. Each question carries 5 marks   **(6x5=30)**

13. Discuss the security principles in cryptography.

14. Write a short note on Public key Cryptography.

15. Explain the hashed message authentication in cryptographic system.

16. What are the roles of Certificate management system?

17. Explain the importance of key management for a secure system.

18. How to build an IPsec security association in ISAKMP?

19. How is Revocated List differ from Certificate directory?

20. Explain the Firewall Configurations.

21. Explain Intruders and their functions.

Part C

III. Answer any Two questions. Each question carries 15 marks   **(2x15=30)**

22. Explain the working of SHA Algorithm with the help of diagrams.

23. How the key management functions are involved in the cryptographic system?Explain.

24. Draw the format of X.509 certificate and X.509 revoked certificate. Explain its fields.

25. Write a note on (i)Honey Pots (ii)Firewalls (iii)IP Address Spoofing