

Time: 3 hours

Max. Marks: 80

INSTRUCTIONS

- (1) Question 1 is compulsory.
- (2) Attempt any **three** from the remaining questions.
- (3) Draw neat diagrams wherever necessary.

Q1

5 marks each

- a) Explain Security Services and mechanisms to implement it.
- b) Compare HMAC and CMAC
- c) Explain different NAC enforcement methods
- d) Explain SSH protocol stack in brief

Q2

10 marks each

- a) Explain Playfair cipher with example
- b) Describe different Block Cipher modes

Q3

10 marks each

- a) State firewall design principles and its types with advantages.
- b) Describe different types of protocol offered by SSL.

Q4

10 marks each

- a) What is Network access control? Discuss the elements present in this context.
- b) Explain Kerberos Protocol in detail.

Q5

10 marks each

- a) Explain the working of IPsec in its different mode.
- b) What is Network Management Security? Explain SNMP V3.

Q6

10 marks each

- a) Explain IDS and its types in detail.
- b) Define Malware. Explain at least five types with example.