(3 hours)   **[Total marks: 75**

N. B.:

1. Attempt any three questions from each section
1. Answers to the two sections must be written in same answer sheet.
2. Figures to the right indicate full marks.
3. Assume additional data if necessary but state the same clearly.
4. Symbols have their usual meanings and tables have their usual standard design unless stated otherwise.
5. Use of Simple calculators and statistical tables is allowed.

Section I

1	a.	What is a malicious code? List and explain any two.	7
	b.	Compare between modification and fabrication with reference to security. Give example.	6
2	a.	Give examples of protected objects. How does operating system ensure their protection?	6
	b.	What is meant by targeted malicious code? Give examples.	6
3	a.	What is authentication? State and explain various types of authentication controls.	6
	b.	What are the requirements of a security system? List and describe them.	6
4	a.	What is a good security policy? What are its essential characteristics?	6
	b.	Write a note on physical security of data.	6
5	a.	What is multilevel security? Explain with suitable example.	6
	b.	What is memory address protection? Explain.	6

Section II

6	a.	Write a note on protocol failure and its impact on network security	7
	b.	Explain the details of DES block structure cipher algorithm.	6
7	a.	Explain the details of encryption and decryption process of RSA algorithm for security of data.	6
	b.	What are the objectives and characteristics of hash algorithm? Explain.	6
8	a.	What are the security problems that arise due to misconfigured servers? Explain.	6
	b.	What is PGP? Explain its working.	6
9.	a.	List and explain goals of server attack.	6
	b.	Write a note on internet key exchange.	
10	a.	What is security association? Explain with suitable example.	6
	b.	What are firewalls? Briefly outline about the firewall configurations.	6

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