

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

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| 1 | a. | What is principle of adequate protection? Explain in detail. | 6 |
| | b. | List and explain various methods of defense. | 6 |
| 2 | a. | What are non-malicious program errors? Explain with suitable example. | 6 |
| | b. | What is a virus? Explain how viruses attach and gain control? | 6 |
| 3 | a. | Write a note on file protection mechanisms. | 6 |
| | b. | What is multilevel security? Why is it important? Give example of multilevel security. | 6 |
| 4 | a. | What are the various security requirements? List and explain each of them. | 6 |
| | b. | Briefly describe the contents of security planning. | 6 |
| 5 | a. | Write a note on ethical issues in computer security. | 6 |
| | b. | What are the characteristics of good security policy? Explain. | 6 |

Section II

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| 6 | a. | What is meant by information leakage? What are its various sources? | 7 |
| | b. | Define the terms cryptography, cryptology and cryptanalysis. | 6 |
| 7 | a. | Outline the structure and operation of DES algorithm. | 6 |
| | b. | What is a digital signature? Explain how digital signature algorithms are used? | 7 |
| 8 | a. | Compare between DES and AES algorithm. | 6 |
| | b. | What is demilitarized zone? Explain. | 7 |
| 9. | a. | What is meant by DNS cache poisoning? Explain. | 6 |
| | b. | What is IDS? Explain its types. | 7 |
| 10 | a. | Write a note on wireless transport layer security. | 6 |
| | b. | Briefly describe the IPSec Key management. | 7 |
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