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MCA
PEE 5001

Fifth Semester Examination – 2007

COMPUTER SECURITY

Full Marks – 70

Time : 3 Hours

Answer Question No. 1 which is compulsory
and any **five** from the rest.

The figures in the right-hand margin
indicate marks.

1. Answer the following questions : 2 × 10
- (a) How many types of computer criminals are there ? Name them and depict their job.
 - (b) Which cipher encrypts one bit of plain text at a time ?
 - (c) What is the difference between public key any private key ?

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- (d) How many bits of block is encrypted by DES ?
- (e) What do you mean by malicious ? Name some nonmalicious errors.
- (f) Name two user authentication techniques.
- (g) Why multilevel database security is required ?
- (h) What is secure email ?
- (i) IPsec provides security in which network layer ?
- (j) Explain the avalanche effect.
2. What is cryptography ? Explain the various cryptographic techniques. 10
3. What are the various models for security ? Explain through example. 10
4. How do you design a trusted OS ? Write the basic process for this and explain. 10

5. Give an account of security issues concerning Database and its remedies. 10
6. List the characteristics of a good firewall implementation. 10
7. Give a full fledged security plan for big organization having offices at different geographical locations. 10
8. What are the various ethical issues in computer security ? Give a total account of it. 10

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