

Con. 3060-08.

(REVISED COURSE)

CO-4126

(3 Hours)

[Total Marks : 100

N.B. : (1) Question No. 1 is **compulsory**.

(2) Attempt any **four** questions out of remaining **six** questions.

(3) **Figures** to the **right** indicate **full marks**.

(4) Answers to questions should be **grouped** and written **together**.

1. (a) What are the key principles of Security ? Explain with example. 5
- (b) Explain the tagged Architecture in memory protection. Give example. 5
- (c) List the limitations on the amount of information leaked per second through a covert channel in a multiaccess computing system. 5
- (d) List three controls that could be applied to detect or prevent Salami attacks. 5
2. (a) What are the different types of Vulnerability, Threat and Control ? Give example of each. 10
- (b) What is a denial of service attack ? What are the way in which an attacker can mount a DOS/DDOS attack on the system ? 10
3. (a) List and explain the various malicious codes and Non-malicious codes. 10
- (b) What is a Firewall ? Describe the types of firewalls with their limitations. 10
4. (a) Explain the use of temporal, physical and logical separation for Security in computing environment. 10
- (b) Explain the various facilities that a database management system provides to protect the sensitive data. 10
5. (a) Describe the types of IDSs and their limitations. Why we need hybrid IDSs ? 10
- (b) Define the term Ethics. What is the difference between laws and Ethics ? What is IEEE code for Ethics ? 10
6. (a) What are the various forms of protection that operating system applies at the file level ? What are the difficulties involved with mechanism ? 10
- (b) What is the purpose of encryption in multi-level secure data bases ? Explain how is it implemented ? Is it a good technique to implement the separation in databses ? Justify. 10
7. (a) What is the term Risk analysis ? Explain in detail the steps in Risk analysis. 10
- (b) Explain Secure E-mail systems with examples. 10