M.E. Second Semester (Information Technology) (Full Time) (C.G.S.)

13430 : System Security : 2 NMEF 4

P. Pages : 2 | **AW - 3480**

Time : Three Hours | Max. Marks : 80

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Notes : 1. Assume suitable data wherever necessary.
2. Illustrate your answer necessary with the help of neat sketches.

1. a) What do you mean by system security? Hence explain security control measures in computer. **7**

b) Explain substitution and permutation in DES. **7**

OR

2. a) Describe the AES algorithm. Give reasons of success and Lawna of AES can be ignored. **7**

b) What is threat? List and explain the classes of threats. **7**

3. a) What are the classic error types that have enabled many recent security branches? Explain them with suitable example. **7**

b) List and explain the different types of Trojans with their characteristics. **6**

OR

4. a) Explain the technique for building a reasonable safe community for electronic contact. **7**

b) Define virus and discuss the truths and misconceptions about it. **6**

5. a) What are the ways that operating system can support separation and sharing? Explain with suitable example. **6**

b) Describe the term All-None protection. Give several reasons for unacceptability of All-or-None protection. **7**

OR

6. a) Explain the need of page segmentation and its working. Describe with suitable diagram. **7**

b) Can any number of concurrent process be protected from one another by just one pair of base/bound registers. **6**

7. a) What are the standards of security policy? Explain Clark Wilson commercial security policy. **7**

b) What is security kernel? Explain why security functions may be isolated in a security kernel. **7**

OR

8.	a)	List and explain the various primitive protection rights in Graham-Denning model.	7
	b)	What do you mean by virtual space? Discuss multiple virtual memory space.	7
9.	a)	What is sensitive data? List and explain the factors that can make the data sensitive.	7
	b)	Describe two-phase update technique. Explain with an example.	6

OR

10.	a)	What are the approaches to provide multilevel security for a database? Explain the integrity lock approach.	7
	b)	What are direct and indirect attacks? Give two examples of each attack type.	6
11.	a)	What is IDS? What are the functions of IDS? Explain strength and weaknesses of IDS.	7
	b)	What is an encryption in network security? Explain link encryption with neat sketches.	6

OR

12.	a)	What is impersonation? What are the choices that an attacker have in impersonation? Explain.	7
	b)	What is firewall? Discuss its types & explain screening router.	6

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