MSEI-022 (P)

POST GRADUATE DIPLOMA IN INFORMATION SECURITY (PGDIS)

Term-End Practical Examination

December, 2016

MSEI-022 (P) : NETWORK SECURITY

Time : 3 hours *Maximum Marks : 100*

Note : (i) *Attempt* **any two** *out of* **three** *questions.*
Each carries **40** *marks.*

(ii) *Viva-voce carries* **20** *marks.*

1. Write a program in C/Java to accept **40**
   8 bit string X
   8 bit key K from the user.
   Apply the following algorithm
   Encryption : Y=X XOR K
   Decryption : Reverse of Encryption
   (Hint : Use special property of XOR.)

2. Perform an experiment on any machine on **40**
   network in the lab for port scanning with Nmap/
   Superscan or any other S/W. Do the following
   analysis on remote machine :
   • Find open ports
   • Find the OS version
   • Find other s/w and version
   • Find other active machines

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3. Calculate the SHA-512 hash value for a **40** word/text file that you have just created. Email this file to yourself and later on download this file from email and save it with some other name. Recalculate the SHA-512 hash value for downloaded file. Compare both hashes and comment on the results. Explain reason(s). Demonstrate hiding and retrieval of an image present on your PC to this word/text file using any steganography tool of your choice.

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