

Roll No.

22672

M. Tech. 3rd Semester (CSE)
CBCS Scheme
Examination – February, 2022

NETWORK SECURITY

Paper : 16CSE23C2

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

1. Write the short note on the following :
 - (a) Differentiate between Active and Passive attacks.
 - (b) Encrypt the plain text 'HAND' using hill cipher with the key $\begin{matrix} 5 & 8 \\ 17 & 3 \end{matrix}$ and verify the result.
 - (c) Encrypt the plain text 'HELLO' using Playfair cipher with key 'EXAM'.

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(d) What are Snoooping and Spoofing ? Distinguish between them.

(e) What is Intrusion detection system ?

UNIT - I

2. What is Cryptographic System ? Explain in detail. Also write about Symmetric and Asymmetric key models.

3. Explain the RSA Algorithm. In a RSA Algorithm it is given that $p = 7$, $q = 11$ and $e = 17$ and $M = 8$, find the cipher text C and decrypt the C to get the plain text M .

UNIT - II

4. Explain AES and DES in detail.

5. Explain Diffie Hellman Key exchange in detail by taking suitable example.

UNIT - III

6. Explain Secure Hyper Text Transfer Protocol (SHHTTP). Also highlight the feature of Time Stamping Protocol (TSP).

7. Differentiate between SSL and SET by explaining them in detail.

UNIT - IV

8. What is Kerberos authentication service ? Explain in detail with its types. Also write its drawbacks and limitations.

9. Write a short note on the following:

- (a) Different types Firewall
- (b) Virus and related threats