H Roll No. 2192046

# TBC–602/TBI–603

## B. C. A. / B. SC. (IT)

## (SIXTH SEMESTER)

## MID SEMESTER

## EXAMINATION, March, 2024

NETWORK SECURITY AND CYBER LAWS

**Time : 1½ Hours**

**Maximum Marks : 50**

**Note :** (i) Answer all the questions by choosing any ***one*** of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) If a network is being protected from any third party entry then explain the basic parameters one should consider to protect the network. (CO1)

*P. T. O.*

OR

(b) Explain the reasons in detail to provide security to application layer and what are the possible countermeasures to do so. (CO2)

2. (a) In an organization the main server is getting requests from many users and responding them simultaneously, but after some time the system went into halt state affecting the whole working of a firm. To overcome this the firm started allowing one request at a time from a user to the main server but after sometime the system again went into halt state. (CO1)

(i) What is the main reason behind system halt in both cases ? Explain.

(ii) How both the scenarios going to affect the information system ? Differentiate in points.

OR

(b) Explain X.509 (Directory authentication services). What is it and how it works ? (CO2)

3. (a) What is the concern any network will feel after a threat and an attack ? Differentiate in points. Explain which one going to harm the system the most in detail. (CO1)

OR

(b) If A is sending a mail to B and there is a possibility of "man in the middle attack" in on air transmission, what phenomenon one going to follow to secure this message ? Explain in detail. (CO2)

4. (a) Explain *three* major parts of ISO security architecture which are used to protect unauthorised entry in the network. (CO1)

OR

(b) Explain the importance and use of dual signature, hashing and digital envelope in SET protocol in details. (CO2)

5. (a) Explain the following : (CO1)

(i) Firewall

(ii) Kerberos

(iii) X-site injection

(iv) Session Hijacking

(v) Network security *vs.* Information security

OR

(b) What is SSL and TLS ? Why is it important and how does it work in a network ? (CO2)