

(4) TBC-603/TBI-604

some time the system went into a 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 half state.

- (i) What is the main reason behind system halt in both cases ? Explain.
- (ii) How do both the scenarios going to affect the information system ? Differentiate in points. (CO5)
- (c) Describe ping of death, teardrop and SYN flooding explain with examples in detail. (CO5)

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**B. C. A./B. SC. (IT)
(SIXTH SEMESTER)
END SEMESTER**

EXAMINATION, June, 2023

NETWORK SECURITY AND CYBER LAWS

Time : Three Hours

Maximum Marks : 100

- Note :**
- (i) All questions are compulsory.
 - (ii) Answer any *two* sub-questions among (a), (b) and (c) in each main question.
 - (iii) Total marks in each main question are **twenty**.
 - (iv) Each sub-question carries 10 marks.
1. (a) If Feistel structure is the base of other cryptographic encryption techniques, what are the pillars of feistel structure ? (CO1)
- (b) What do you understand by threat and attack. Differentiate both with examples.

(CO1)

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- (c) What is CIA triand ? How does it provide security to a network from a third party ? Explain in detail. (CO1)
2. (a) Explain the following : (CO2)
- (i) Confusion and diffusion
 - (ii) Message digest
 - (iii) Security services
 - (iv) Cryptanalysis
- (b) Explain 5 security mechanisms with the possible security services for which they are being used in a network. (CO2)
- (c) Explain the design principals of block ciphers in detail. (CO2)
3. (a) Explain the message authentication code and hash function. What kind of encryption techniques are being used to generate them ? (CO3)
- (b) Write about the significance of digital signature according to today's scenario. Explain the procedure to generate digital signature with suitable diagram. (CO3)

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- (c) Explain the terms Kerberos, X.509 and e-mail security in detail. (CO3)
4. (a) What are cyber crimes ? What are the measures taken up by various security providing authorities to handle cyber crimes in current times ? Explain in detail. (CO4)
- (b) Explain the IT Act, 2000 in detail. What are the special privileges it providing an individual to handle cyber crimes ? (CO4)
- (c) Explain the following : (CO4)
- (i) Intellectual property vs. physical property
 - (ii) Copyright
 - (iii) Patent law
 - (iv) Trade secret
5. (a) What is information gathering ? Explain the different methods for gathering in details. (CO5)
- (b) In an organization the main server is getting requests from many users and responding them simultaneously, but after