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Total Number of Pages: 02

B.Tech
RCS7D002

7th Semester Regular/Back Examination: 2024-2025

Cyber Security and Privacy

BRANCH(S): CSE

Time: 3 Hours

Max Marks: 100

Q.Code : R097

Answer Question No.1 (Part-1) which is compulsory, any eight from Part-II and any two from Part-III.

The figures in the right-hand margin indicate marks.

Part-I

Q1 Answer the following questions: (2 x 10)

- Who and when coined the word cyberspace?
- What are the various cybercrimes against individuals?
- What are the different types of cybercriminals?
- How is a worm different from a trojan horse from cyber-attack point of view?
- What is cyber security?
- What is hacking? What are the various purposes of hacking?
- What do you mean by computer sabotage? What is the purpose of it?
- What are the amendments done in ITA2008?
- What is identity theft? Explain with examples.
- What is cryptographic hash function? In Blockchain which hash algorithm is used.

Part-II

Q2 Only Focused-Short Answer Type Questions- (Answer Any Eight out of Twelve) (6 x 8)

- What are viruses in cyberworld? How they get disseminated? Explain with diagrams.
- What do you mean by authentication? Explain the terms prover and verifier? What are the various authentication methods? Explain dictionary attack on passwords and give one approach how it can be prevented.
- What is intrusion? What are the tasks of IDS? Classify the IDS based on their functionality and differentiate them.
- What is access control in the Operating Systems? How access control rights are represented in an Operating System? Explain with an example the terms ACL, Windows registry, Subject, Object with respect to OS Security.
- Explain the SSL protocol at the transport layer of the network.
- What are the main functions of WS-Security? Also explain the terms: WS-Trust and WS-Security Policy.
- What is SQL Injection vulnerability, explain with an example? How can it be remedied?

- h) What are the security issues of cloud computing? What measures should be taken by cloud service provider to secure its clients?
- i) What kind of attacks are possible on mobile phones? What counter measures need to be provided to secure your cell phone.
- j) What is the cybersecurity best practices that should be followed by organizations to mitigate malware threats?
- k) What is digital forensic? What are the various branches of digital forensic? What tools do the forensic examiners use for investigation?
- l) What is IPR act in India? What are the various types of IPR? Why IPR is important?

Part-III

Only Long Answer Type Questions (Answer Any Two out of Four)

- Q3** What is firewall? How are firewalls different from IDS? What are the different types of firewalls available in the market? With a neat diagram explain the placement of a firewall in an organization. **(16)**
- Q4** What is Information Technology Act? Discuss its aims and objectives. **(16)**
- Q5** Explain the importance of strong documentation in cyberforensics profession. Highlight the keys steps to be performed in solving a computer forensic case. **(16)**
- Q6** What are the different components of wireless network? How can wireless networks be compromised? Differentiate between WEP and WEP2. Differentiate between WAPKitting and WAPJacking. **(16)**