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Question Paper Code: U2604

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Professional Elective

Information Technology

21CSV604 - CYBER SECURITY

(Common to AI&DS and CSD Engineering branches)

(Régulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1. What are Cyber Crimes and How these crimes can be minimized? CO1-U
2. How Cyber Security helps us from cyber threats. CO1-U
3. Define the term Malicious. CO1-U
4. Identify few Security tips for cybercafé to safeguard the victim CO1-U
5. What is the goal of social engineering reconnaissance? CO1-U
6. What is the goal of a stealth scan? CO1-U
7. Define hybrid intrusion detection system CO1-U
8. Summarize the strength and the weaknesses of host based IDS approaches CO1-U
9. What is Ip spoofing? CO1-U
10. What type of firewall is used to block a web security threat? CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Correlate the CIA triad and Cyber threats. CO1-U (16)
Or
(b) Discuss about the Global perspective of Cyber Crime CO1-U (16)
12. (a) Explain the differences between viruses, worms, and trojans as forms of malicious software. How do these threats propagate and impact organizational systems? CO1-U (16)

Or

- (b) Describe the role of attack tools such as Metasploit or Nmap in cyber security assessments. How do these tools assist cyber security professionals in identifying and exploiting vulnerabilities? CO1-U (16)
13. (a) You are tasked with identifying potential security weaknesses in a company's network. Describe how you would approach this task, starting from reconnaissance to report vulnerabilities CO2-App (16)
- Or
- (b) During a vulnerability scan, you discover an open port that shouldn't be accessible externally. What steps would you take to investigate further and mitigate the risk? CO2-App (16)
14. (a) Explain the system architecture of Hybrid Multi-level Intrusion Detection System. CO1-U (16)
- Or
- (b) Which system was designed and implemented for the detection of intrusions in a multi-user Air Force computer system. Explain in detail. CO1-U (16)
15. (a) Compare and contrast a proxy firewall and a reverse proxy firewall. Explain their use. CO1-U (16)
- Or
- (b) Compare the roles and challenges of using firewalls in traditional on-premises environments vs cloud environments. CO1-U (16)