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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

Question Paper Code: 60007

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Seventh Semester

Information Technology

U19ITV22 – CYBER SECURITY

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels (KL)	K1 – Remembering	K3 – Applying	K5 - Evaluating
	K2 – Understanding	K4 – Analyzing	K6 - Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Write procedure for configuring Kali Linux?	2	K1	CO1
2.	What is the primary goal of website penetration testing?	2	K1	CO1
3.	List the security challenges posed by Mobile Devices.	2	K1	CO2
4.	What is the role of authentication in service security? List various types.	2	K1	CO2
5.	Define Spywares. List recent, prominent Spywares.	2	K1	CO3
6.	List two differences between software and hardware keyloggers.	2	K1	CO3
7.	What is a phishing toolkit, and how is it used?	2	K1	CO4
8.	Differentiate between phishing and spear phishing.	2	K1	CO4
9.	Define trade secret and state the importance.	2	K1	CO5
10.	State one psychological trait present common among hackers.	2	K1	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11.	a) Explain the various classification of Cybercrimes with suitable examples.	13	K2	CO1
	(OR)			
	b) Define Social Engineering. Explain each type of Social Engineering in detail, with a real use case.	13	K2	CO1
12.	a) Examine the Credit Card Frauds occurred using Mobile & Wireless Devices.	13	K2	CO2
	(OR)			
	b) Describe the physical security countermeasures for protecting Laptops and the organizational measures for handling Mobile Devices.	13	K2	CO2
13.	a) Brief Password Cracking. Discuss and analyze the tools used for Password Cracking. Elaborate step-by-step procedure of a tool.	13	K2	CO3
	(OR)			
	b) i. Explain about Trojan Horses and Backdoors in detail with examples.	7	K2	CO3
	ii. Differentiate between computer Virus and Worms with examples.	6	K2	
14.	a) Describe about the security risks and perils for organizations. Discuss with a real scenario.	13	K3	CO4
	(OR)			
	b) Explain in detail about different types of Phishing Scams. Discuss recent scams and the ways to mitigate it.	13	K2	CO4
15.	a) Explain the different types of Intellectual Property Rights.	13	K2	CO5
	(OR)			
	b) Discuss the relationship between cyber criminals and information warfare from a sociological perspective.	13	K2	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	<p>A large financial institution, SecureBank, has recently experienced a security breach where sensitive customer data was compromised. The breach was traced back to a group of cybercriminals who exploited a vulnerability in the bank's software. To mitigate future risks, SecureBank hires an ethical hacking team to conduct a thorough security audit of their systems. Meanwhile, law enforcement is trying to understand the psychology and motives of the cybercriminals behind the attack. Analyze the psychological and sociological factors that might influence both ethical hackers and cybercriminals in their actions. How might the mindset and skills of ethical hackers differ from those of cybercriminals? Additionally, discuss the concept of information warfare and how SecureBank should prepare to defend against similar threats in the future.</p>	15	K3	CO5

(OR)

b)	<p>A tech startup, TechVision, has developed an innovative software solution that automates complex data analysis for small businesses. The software's unique algorithm is proprietary and gives TechVision a significant competitive advantage in the market. The company has secured patents for the algorithm and trademarks for its branding, and it also maintains trade secrets about the software's underlying code. However, shortly after launching the product, TechVision discovers that a competitor, DataMinds Inc., has launched a similar product with an almost identical algorithm. Discuss the potential intellectual property issues TechVision might face and the legal actions they could take to protect their interests. In your answer, consider the role of patents, trademarks, trade secrets, and domain names. Also, explain the ethical considerations TechVision should consider when pursuing legal action against DataMinds Inc.</p>	15	K3	CO5
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