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**PRESIDENCY UNIVERSITY**

**Bengaluru**

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| **End - Term Examinations – JANUARY 2025** |
| **Date:** 08 / 01/ 2025 **Time:** 09:30 am – 12:30 pm |

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| **School:** SOCSE | **Program:** B.Tech - ISE/ISD | |
| **Course Code:** CSE3350 | **Course Name:** Cyber Security | |
| **Semester**: V | **Max Marks**: 100 | **Weightage**: 50% |

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| **CO - Levels** | **CO1** | **CO2** | **CO3** | **CO4** | **CO5** |
| **Marks** | **24** | **24** | **26** | **26** | **--** |

**Instructions:**

1. *Read all questions carefully and answer accordingly.*
2. *Do not write anything on the question paper other than roll number.*

**Part A**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Answer ALL the Questions. Each question carries 2marks. 10Q x 2M=20M** | | | | |
| **1** | List the Some common vulnerabilities | **2 Marks** | **L1** | **CO1** |
| **2** | What are the three categories of motivation of attacker | **2 Marks** | **L1** | **CO1** |
| **3** | Write the Examples of Cyberstalking | **2 Marks** | **L1** | **CO2** |
| **4** | What are the reasons for using anonymizers? | **2 Marks** | **L1** | **CO2** |
| **5** | List the External Threat | **2 Marks** | **L1** | **CO3** |
| **6** | What are the benefits of mobile service security? | **2 Marks** | **L1** | **CO3** |
| **7** | List the four Examples of Intrusion | **2 Marks** | **L1** | **CO3** |
| **8** | What are the Types of Cybersecurity Threats | **2 Marks** | **L1** | **CO4** |
| **9** | List the cloud security categories | **2 Marks** | **L1** | **CO4** |
| **10** | What Is Computer Forensics? | **2 Marks** | **L1** | **CO4** |

**Part B**

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| **Answer the Questions Total 80 Marks.** | | | | | |
| **11.** | **a** | Explain the seven layers of cyber security | **10 Marks** | **L2** | **CO1** |
| **b** | Explain the types Software attack and compare with hardware attack | **10 Marks** | **L3** | **CO1** |
| **Or** | | | | | |  | **Discuss all the deployment models in Cloud Computing in detail with examples.** |
| **12.** | **a** | Explain the security policy and firewall policy | **10 Marks** | **L2** | **CO1** |
| **b** | Classify the types of web-based attacks and compare with system-based attacks | **10 Marks** | **L3** | **CO1** |
|  |  |  |  |  |  |
| **13.** | **a** | Explain the types of password attack | **10 Marks** | **L3** | **CO2** |
|  | **b** | You are working in KPC company as a network administrator to evaluate the security of its wireless network. Recently, the company has experienced intermittent connectivity issues and slow network performance, leading to concerns about potential security threats. When you identify that the Wi-Fi network is using WPA2 encryption with a relatively weak password, and you notice several unauthorized devices connected to the network. Additionally, some employees report unusual activities such as strange pop-ups and redirected web traffic.  Identify what are types of wireless attack in the network for the above scenario? Explain the attacks in the wireless network? What is your recommendations would you make to enhance the overall security of the wireless network? | **10 Marks** | **L3** | **CO2** |
| **or** | | | | | |
| **14.** | **a** | Explain the types of proxy server | **10 Marks** | **L2** | **CO2** |
|  | **b** | Assume that you are working in ABC company as a cybersecurity analyst. One day, you receive an email from an HR employee.  The email states that all the employees must update their login credentials immediately by clicking on a link provided in the email. The email includes the company's logo. Upon clicking the link, you're directed to a login page that looks almost identical to your company’s actual portal. However, the URL is slightly misspell.  Question: Identify what type of social engineering attack is carried out here. What steps you be taking to secure the company's data? | **10 Marks** | **L2** | **CO2** |

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| **15.** | **a** | Explain how does the mobile devices security works | **10 Marks** | **L2** | **CO3** |
|  | **b** | AGS college of Engineering in Hyderabad , the college has two networks , network1 : 130.10.10.0 and Network2 :160.10.10.0 , this two networks are connected in single the router and each network has single switch and three computers, In this network FTP server (130.10.10.10) connected in network1 and email server (160.10.10.10) are connected in network2  Assume that you are the network administrator , you have to develop the firewall policy using extended ACL for the following condition  1.Draw the network diagram for the above scenario and explain the extended ACL  Apply ACL concept and Write the firewall policy for the following condition :  2.Permit only host 130.10.10.3 from network 130.10.10.0 to access mail server, deny all other host in that network  3. permit all the host from network 160.10.10.0 to access FTP server except host 160.10.10.7 | **10 Marks** | **L3** | **CO3** |
| **Or** | | | | | |
| **16.** | **a** | Explain the DMZ and honeypot with diagram | **10 Marks** | **L3** | **CO3** |
|  | **b** | Assume that You are a network administrator for a Tata company with multiple departments, including HR, Sales, and IT. Each department has its own set of computers and network devices. The company has a single physical switch, but you want to segment the network to improve security and manageability. You decide to separate the traffic between departments and configure that each department should not be able to communicate with the other department. Identify what technique you used for the above scenario ? explain with digaram | **10 Marks** | **L2** | **CO3** |

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| **17.** | **a** | Explain how the cloud security work with examples. | **10 Marks** | **L3** | **CO4** |
|  | **b** | Explain the Blockchain Use For Cybersecurity with examples. | **10 Marks** | **L3** | **CO4** |
| **Or** | | | | | |
| **18.** | **a** | Explain the IoT device and its elements with diagram | **10 Marks** | **L2** | **CO4** |
|  | **b** | Explain how is AI Used in Cybersecurity with examples. | **10 Marks** | **L2** | **CO4** |

**\*\*\*\*\* BEST WISHES \*\*\*\*\***