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**Presidency University**

**Bengaluru**

**School of Computer Science Engineering & Information Science**

**SUMMER TERM**

**Summer Term End Examinations - August 2024**

**Date**: 7 Aug 2024

**Time**: 09:30am – 12.30 pm

**Max Marks**: 100

**Weightage**: 50%

**AY**: 2023 - 24

**Course Code**: CSE2040

**Course Name**: Cyber Threats for IOT and Cloud

**Department: Computer Science and Engineering**

**Instructions:**

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

**PART - A**

**Answer any FIVE Questions. Each question carries 5 marks. (5Q x 5M = 25M)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q. No.** | **Questions** | **Marks** | **CO** | **RBT** |
|  | Explain the architecture of IOT with a neat diagram. | **5** | **CO1** | **L2** |
|  | Summarize the different characteristics and challenges of IOT. | **5** | **CO1** | **L2** |
|  | Describe VIRUS? List Different Phases of Viruses in detail. | **5** | **CO2** | **L2** |
|  | Explain CIA Security Model with neat diagram. | **5** | **CO2** | **L2** |
|  | Explain some common IOT interfaces used for device connectivity. | **5** | **CO3** | **L2** |
|  | **Define Ransomware, how does a computer become infected with Ransomware?** | **5** | **CO3** | **L3** |
|  | Explain the strategies for detecting Cloud misconfiguration. | **5** | **CO4** | **L2** |

**PART - B**

**Answer FIVE Questions. Each question carries 15 marks. (5Q x 15M = 75M)**

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| **Q. No.** | **Questions** | **Marks** | **CO** | **RBT** |
|  | Discover the role of hypervisor in virtualization? Briefly explain the different types of hypervisors with a sketch the diagram. | **15** | **CO1** | **L2** |
| **OR** | | | | |
|  | **Describe the main cloud service models of an IaaS, Paas, SaaS based solution for cloud computing and explain in detail.** | **15** | **CO1** | **L2** |
|  | Classify the major privacy and security issues in Internet of Things. | **15** | **CO2** | **L2** |
| **OR** | | | | |
|  | Define: 1) Authentication 2) Biometrics 3) Access controls  4) Authorization. | **15** | **CO2** | **L3** |
|  | **Differentiate between Botnets, Denial of service, Man-in-the-Middle, Identity and data theft explain each in detail.** | **15** | **CO3** | **L1** |
| **OR** | | | | |
|  | **Summarize the different types of components used in IoT and explain each in detail.** | **15** | **CO3** | **L1** |
|  | Cloud misconfigurations are a significant source of cybersecurity risks in cloud computing. Explain Cloud misconfiguration in detail. | **15** | **CO4** | **L2** |
| **OR** | | | | |
|  | **Identify the key principles of security architecture for IoT devices.** | **15** | **CO3** | **L3** |
|  | **List out the common causes of cloud security misconfigurations.** | **15** | **CO4** | **L2** |
| **OR** | | | | |
|  | Classify the Insider Threats, Reduced Infrastructure Visibility. | **15** | **CO4** | **L2** |