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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SET-A**

**SCHOOL OF ENGINEERING**

**END TERM EXAMINATION – MAY/JUNE 2024**

**Semester :** Semester VIII - B.Tech CSE - 2020

**Date :** MAY 31-2024

**Course Code :** CSE2040

**Time :** 9:30 AM -12:30 PM

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

**Max Marks :** 100

**Program :** B.Tech-Computer Science and Engineering

**Weightage :** 50 %

- Note:**
- 1. Answer ALL 5 FULL Questions.**
  - 2. Each Full Question carries 20 Marks**
  - 3. Scientific and non-programmable calculator are permitted.**
  - 4. Do not write any information on the question paper other than Roll Number.**

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|-----------|---|-------|------------|
| 1.a.      | Discuss the architecture of IOT with a neat diagram. [Knowledge]  | (C01) | (04 Marks) |
| 1.b.      | Classify the major privacy and security issues in Internet of Things. [Comprehension]   | (C01) | (06 Marks) |
| 1.c.      | Differentiate between the Industrial Internet of Things (IIoT) and the Internet of Things (IOT). [Application]                                    | (C01) | (10 Marks) |
| <b>or</b> |   |       |            |
| 2.a.      | Summarize the IoT enabling Technologies & M2M Communication with suitable examples. [Knowledge]   | (C01) | (04 Marks) |
| 2.b.      | Summarize the different characteristics and challenges of IOT. [Comprehension]  | (C01) | (06 Marks) |
| 2.c.      | Discover the concept of digitization in IOT and the impact of IOT on the devices connected to internet with example. [Application]                | (C01) | (10 Marks) |
| 3.a.      | Compare between cyber defence Vs. cybersecurity and give suitable activities. [Knowledge]   | (C02) | (04 Marks) |
| 3.b.      | Discuss the attacks on mobile/cell phones. Write short notes on i) Smishing, ii) Vishing and iii) spyware iv) Phishing in detail. [Comprehension] | (C02) | (06 Marks) |
| 3.c.      | Write short notes on i) Cyber Crime, ii) Cyber terrorism, iii) Cyber Espionage iv) Cyber Investigation [Application]                              | (C02) | (10 Marks) |
| <b>or</b> |   |       |            |
| 4.a.      | List out the features of firewall? Write the steps in providing network security and to set Firewall Security in windows. [Knowledge]             | (C02) | (04 Marks) |
| 4.b.      | List out different types of password attack and explain in detail. [Comprehension]  | (C02) | (06 Marks) |
| 4.c.      | Define the terms; Virus, Malware, Ransomware and Phishing with a  | (C02) | (10 Marks) |

suitable an example. **[Application]**

- 5.a. Explain the difference between a Threat, Vulnerability, and Risk in cybersecurity. **[Knowledge]** (C03) (04 Marks)
- 5.b. Summarize the different types of components used in IoT and explain each in detail. **[Comprehension]** (C03) (06 Marks)
- 5.c. Illustrate the best practices to reduce risks and prevent threats. **[Application]** (C03) (10 Marks)
- OR**
- 6.a. Define Ransomware, how does a computer become infected with Ransomware? **[Knowledge]** (C03) (04 Marks)
- 6.b. Discuss botnet in computer networks and its types of botnet attacks in detail. **[Comprehension]** (C03) (06 Marks)
- 6.c. Differentiate the Advanced persistent threats, Ransomware, Remote recording; How does the IoT influence security? **[Application]** (C03) (10 Marks)
- 7.a. Identify the compliance and regulatory issues in cloud computing. **[Knowledge]** (C04) (04 Marks)
- 7.b. Discover the strategies for detecting Cloud misconfiguration. **[Comprehension]** (C04) (06 Marks)
- 7.c. Describe the strategies to address the challenges of reduced infrastructure visibility in cloud computing. **[Application]** (C04) (10 Marks)
- OR**
- 8.a. Summarize the best practices to mitigate risks of insecure APIs in cloud computing environment **[Knowledge]** (C04) (04 Marks)
- 8.b. Demonstrate the key points about insider threats in cloud computing in detail. **[Comprehension]** (C04) (06 Marks)
- 8.c. Explain key points about insider threats in cloud computing and write the impact on the organization's critical information or systems. **[Application]** (C04) (10 Marks)
- 9.a. Explain the Security guidelines for IoT and Managing IoT Security Threats. **[Knowledge]** (C03,C04) (04 Marks)
- 9.b. Differentiate between Botnets, Denial of service, Man-in-the-Middle, Identity and data theft explain each in detail. **[Comprehension]** (C03,C04) (06 Marks)
- 9.c. Explain how it is insecure in cloud computing. **[Application]** (C03,C04) (10 Marks)
- OR**
- 10.a. Explain cloud misconfigurations in detail? **[Knowledge]** (C03,C04) (04 Marks)
- 10.b. Differentiate between the public and private cloud computing with its working in detail. **[Comprehension]** (C03,C04) (06 Marks)
- 10.c. Demonstrate each of the cloud computing service and identify two cloud service providers with the company name in each service category. **[Application]** (C03,C04) (10 Marks)