

School Of Engineering & Technology

Department of Computer Science & Information technology

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**Course:** COMP 404 – COMPUTER SYSTEM SECURITY

**Assignment 1**

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**COMP 404 – COMPUTER SECURITY**

1. **Identify and rate a risk and use the risk determination matrix.**

**Ans:**

Risk management is the process of identifying, assessing, and prioritizing risks to information systems and data, and then implementing measures to minimize, monitor, and control the probability or impact of those risks. Risk determination (risk assessment or risk analysis) is the step within the broader risk management process where you evaluate and quantify the potential risks to an organization's information systems and data. It involves analyzing threats, vulnerabilities, and their potential impacts to determine the level of risk

| **Impact →** | **1 (Low)** | **2** | **3 (Med)** | **4 (High)** | **5 (Crit)** |
| --- | --- | --- | --- | --- | --- |
| **5 (High)** | Low | Med | High | **Extreme** | **Extreme** |
| **4** | Low | Med | High | High | **Extreme** |
| **3 (Med)** | Low | Med | Med | High | High |
| **2** | Low | Low | Med | Med | High |
| **1 (Low)** | Low | Low | Low | Med | Med |

This analysis highlights the importance of proactive risk management in IT infrastructure. By quantifying risks using structured frameworks like NIST SP 800-30, organizations can allocate resources effectively, ensuring resilience against critical failures. Regular audits, continuous monitoring, and periodic reassessments further strengthen an organization’s ability to mitigate evolving threats.