

| Scenario                  | Asset                                    | Threat              | Vulnerability                        | Attack  | Control  |
|---------------------------|--|---------------------|--------------------------------------|---|--|
| 1. Public Wi-Fi Access    | Company internal system & financial data | Unauthorized access | Use of unsecured public Wi-Fi        | Man-in-the-middle attack leading to fraudulent transactions | Enforce VPN use<br>Multi-factor authentication and security awareness training |
| 2. Fake HR Email          | Employee login credentials               | Phishing            | Lack of email verification awareness | Credential harvesting via malicious link                    | Email filtering<br>phishing awareness training MFA                             |
| 3. Fake Tech Support Call | Employee credentials                     | Social engineering  | Trust in authority figures           | Impersonation attack (pretexting)                           | Verification protocols<br>employee training, caller ID Validation              |
| 4. Fake Login Page        | User credentials & financial data        | Credential theft    | Weak URL verification                | Pharming attack (redirect to fake site)                     | Anti-Phishing tools, SSL/TLS enforcement, user awareness                       |
| 5. Power Interruption     | Company servers & stored data            | Data corruption     | Lack of backup/power redundancy      | Improper shutdown causing data loss                         | UPS systems, regular backups, disaster recovery plan                           |
| 6. Malicious Attachment   | Employee workstation & files             | Malware infection   | Opening unverified attachments       | Ransomware attack (file encryption)                         | Email attachment scanning, endpoint protection, user training                  |

|                  |                         |                |  |                               |  |
|------------------|-------------------------|----------------|--|-------------------------------|--|
| 7. Stolen Laptop | Sensitive customer data | Physical theft | Lack of encryption & physical security | Data breach via stolen device | Full-disk encryption, remote wipe capability, physical security policies |
|------------------|-------------------------|----------------|--|-------------------------------|--|

### **1. What would happen to the organization if no security controls were implemented?**

Answer : Without security controls, the organization would face frequent breaches, data loss, financial fraud, and reputational damage. Employees and customers would lose trust, and regulatory penalties could be imposed for failing to protect sensitive information. Ultimately, the business could suffer severe operational disruption or even collapse.

### **2. Why must management and IT work together in information security?**

Answer : Management sets policies, allocates resources, and enforces compliance, while IT implements technical safeguards and monitors threats. Collaboration ensures that security measures align with business goals and that employees are properly trained. A united approach creates a culture of security, reducing risks and strengthening resilience against attacks.