THE UNIVERSITY OF DODOMA

COLLEGE OF INFORMATICS AND VIRTUAL EDUCATION

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (CSE)

GROUP ASSIGNMENT

COURSE NAME: OPERATING SYSTEM SECURITY

COURSE CODE: IA 313

PROGRAM: Bsc.CNISE

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QUESTION ONE: What is system security?

System security is the protection of computer system and information from harm, theft and unauthorized use.

QUESTION TWO: What are the security problems in OS?

The following are the security problems in OS;

- ✓ Priviledge Escalation
- ✓ Malware Attacks
- ✓ Upatched Vulnerabilities
- ✓ Weak Authentication Mechanisms
- ✓ Buffer overflows
- ✓ Backdoors
- ✓ Rootkits
- ✓ Denial of services
- ✓ Social Engineering attacks

QUESTION THREE: Why is operating system security important?

The operating system security is very importants because it helps to;

- ✓ **Protects sensitive data**
  OS security helps ensure that sensitive data, such as personal information, financial records, and corporate secrets, are kept safe from unauthorized access or theft.

- ✓ **Ensure system Integrity**
  A secure OS ensures that system files, applications, and configurations are not tampered with, preventing malicious alterations that could compromise system stability or functionality.

- ✓ **Prevent unauthorized Access**
  OS security ensures that only authorized users and processes can access system resources, preventing attackers from exploiting vulnerabilities.

- ✓ **Mitigate Malware Risk**
  A strong OS security framework can detect and block malware, viruses, and other malicious threats that could harm the system and its users.

- ✓ **Maintains Service Availabilty**
  Security breaches, such as denial-of-service attacks, can cause significant downtime and productivity loss. Protecting the OS ensures that the system remains available and functional**.**