

❖ computer security

➤ hardware security

- regular maintenance
- insurance
- power regulating devices
 - UPS
 - Volt guard
 - spikes guard
- protection from dust
- from fire
- from theft
- air condition

➤ information security

▪ threats

• malicious codes

◆ computer virus

- system or boot infectors
- file infectors
- stealth virus
- macro virus

- ◆ email virus
- ◆ worms
- ◆ trojan horses
- ◆ spyware/adware
- ◆ rootkit
- ◆ ransomware
- ◆ keylogger

- hackers

- phishing

- viral web sites

- social engineering

■ protection

- authentication system

- ◆ password
- ◆ biometric
 - behavioral biometrics
 - physiological biometrics

- firewall

- ◆ hardware firewall
- ◆ software firewall

- **cryptography**

- symmetric key
- asymmetric key
- public key
- private key

- **antivirus software**

- **backup**

- usb flash drives
- external hard drives
- *backup servers*
- *cloud storage*