

- 1 Chapter 4
The Components of
the System Unit

- 2 Chapter 4 Objectives
- 3 The System Unit
 - ❖ **Box-like case that contains computer's electronic components**
 - ❖ **Sometimes called the chassis**
- 4 The System Unit
- 5 The System Unit
 - What is the motherboard?**
- 6 The System Unit
 - What chip packages are available?**
- 7 Central Processing Unit
 - What is the central processing unit (CPU) ?**
- 8 Central Processing Unit
 - What are the components of the CPU?**
- 9 Central Processing Unit
 - What is the control unit?**
- 10 Central Processing Unit
 - What is a machine cycle?**
- 11 Central Processing Unit
 - An example of a machine cycle**
- 12 Central Processing Unit
 - How is the CPU's speed measured?**
- 13 Central Processing Unit
 - What are two designs used for the CPU?**
- 14 Central Processing Unit
 - What is the arithmetic/logic unit (ALU) ?**
- 15 Central Processing Unit
 - What is pipelining?**
- 16 Central Processing Unit
 - What is a register?**

- 17 Central Processing Unit
What is the system clock?
- 18 Central Processing Unit
What is a microprocessor ?
- 19 Central Processing Unit
How do personal computer processors compare?
- 20 Central Processing Unit
What is a coprocessor?
- 21 Central Processing Unit
What is parallel processing?
- 22 Data Representation
How do computers represent data?
- 23 Data Representation
What is the binary system?
- 24 Data Representation
What is a byte?
- 25 Data Representation
What are three popular coding systems to represent data?
- 26 Data Representation
How is a character sent from keyboard to computer?
- 27 Memory
What is memory?
- 28 Memory
How is memory measured?
- 29 Memory
What are two types of system unit memory?
- 30 Memory
What is random access memory (RAM)?
- 31 Memory
What are two basic types of RAM chips?
- 32 Memory
How much RAM is needed?
- 33 Memory

How much RAM is needed?

34 Memory

What is cache?

35 Memory

What is read-only memory (ROM)?

36 Memory

Types of ROM

37 Memory

What is flash memory?

38 Memory

What is CMOS?

39 Memory

What is memory access time?

40 Expansion Slots and Expansion Cards

What is an expansion slot?

41 Expansion Slots and Expansion Cards

How are expansion cards used?

42 Expansion Slots and Expansion Cards

What is Plug and Play?

43 Expansion Slots and Expansion Cards

What is a PC card?

44 Expansion Slots and Expansion Cards

What is a flash memory card?

45 Ports

What is a port?

46 Ports

What are different types of connectors?

47 Ports

What is a serial port?

48 Ports

What is a parallel port?

49 Ports

What is a universal serial bus port (USB) ?

50 Buses

What is a bus?

51 Buses

What is an expansion bus?

52 Bays

What is a bay?

53 Power Supply

What is a power supply?

54 Mobile Computers

What is a mobile computer?

55 Mobile Computers

What ports are on a notebook computer?

56 Mobile Computers

How is data transferred from a handheld computer?

57 Putting It All Together

What are suggested processor, clock speed, and RAM requirements based on the needs of various types of users?

58 **Summary of the Components**

of the System Unit

- ❖ **The system unit**
- ❖ **Central processing unit**
- ❖ **Data representation**
- ❖ **Memory**
- ❖ **Expansion slots and expansion cards**
- ❖ **Ports, buses, bays**
- ❖ **Power supply**
- ❖ **Mobile computers**