Unit 1

What is a computer?

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A computer is a machine with an intricate (پیچیده) network of electronic circuits (مدارات) that operate switches or magnetize tiny (ریز) metal cores (هسته ها). The switches, like the cores, are capable of being in one of two possible states, that (یعنی) is, on or off; magnetized or demagnetized. The machine is capable of storing and manipulating (دستکاری کردن) numbers, letters and characters. The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or that magnetize or do not magnetize the cores.

What is a computer?

به همین دلیل

- The basic job of computers is the processing of information. For this reason, computers can be defined as devices (دستگاه هایی) which accept (می پذیرند) information in the form of instructions (دستور العملها) called a program and characters called data, perform mathematical and/or logical operations on the information and then supply (فراهم می کنند) results of these operations. The program, or part of it, which tells the computers what to do and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

What is a computer?

تصور می شود قابل توجه چه

- Computers are thought to have many remarkable powers. However, most computers, whether large or small have three basic capabilities. First, computers have circuits for performing arithmetic operations, such as: addition, subtraction, division, multiplication and exponentiation. Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. However, certain computers (commonly minicomputers and microcomputers) are used to control directly things such as robots, aircraft navigation systems, medical instruments and etc.

عملیات محاسباتی به توان رساندن

وسیله – ابزار

به هر حال

ابزارها غیره

What is a computer?

متداول کارتهای پانچ

Some of the most common methods of inputting information are to use punched cards,

نوار مغناطیسی

magnetic tape, disks and terminals. The computer's input device (which might be a card reader, a tape drive or disk drive, depending on the medium used in inputting information) reads the information into the computer.

For outputting information, two common devices used are a printer which prints the new

صفحه شبیه تلوزیون

information on paper, or a CRT display screen which shows the results on a TV-like screen.

What is a computer?

انواع تصمیماتی

Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits can make are not the type: “Who would win a war between two countries?” or “What is the richest person in the world?”. Unfortunately, the computer can only decide three things, namely: Is one number less that another? Are two numbers equals? And, Is one number greater than another?

عبارتند از

What is a computer?

تصمیمات منطقی بگیرند

A computer can solve a series of problem and make hundreds, even thousands, of logical decisions without

کسری از زمان بشر

becoming tired or bored. It can find the solutions to a problem in a fraction of the time it takes a human being

ابتکار

to do the job. A computer can replace people in dull, routine tasks, but it has no originality; it works according

دستورالعمل ها قضاوت

to the instructions given to it and cannot exercise any value judgments. There are times when a computer

ذهن بشر

seems to operate like a mechanical 'brain', but its achievements are limited by the minds of human beings. A computer cannot do anything unless a person tells it what to do and gives it the appropriate information; but because electric pulses can move at the speed of light, a computer can carry out vast numbers of arithmetic-

بلافاصله

logical operations almost instantaneously. A person can do everything a computer can do, but in many cases

خیلی قبل تر از

that person would be dead long before the job was finished.

Exercises: 1. Understanding the passage

Decide whether the following statements are True or False (T/F) be refereeing to the information in the text. Then make the necessary changes so that the false statements become true.

1. A computer can store or handle any data if it hasn't received information to do so. ✗ **… it has received …**
2. All computers accept and process information in the form of instructions and characters. ✓
3. The information necessary for solving problems is found in the memory of the computer. ✓
4. Not all computers can perform arithmetic operations, make decisions and communicate in some way with the user. ✗ **All the computers …**
5. Computers can still be useful machines even if they can't communicate with the user. ✗ **… can't be usefule …**
6. There are may different devices used for feeding information into a computer. ✓
7. There are not as many different types of devices used for giving results as there are for accepting information. ✓
8. Computers can make any type of decisions they are asked to. ✗ **… can make three types of …**
9. Computers can work without having to stop to rest unless there is a breakdown ✓

Exercises: 2. Understanding words

- Refer back to the text and find synonyms for the following words.
  - Complex **intricate**
  - Fundamental **basic**
  - A way **method**
  - Uninterested **bored**
  - Accomplishments **Results/ achievments**

Exercises: 2. Understanding words

- Refer back to the text and find antonyms for the following words.
  - Large **tiny**
  - Receiving **outputting**
  - Reject **accept**
  - unusual **Common/routine**
  - small **Large/vast**

Structure 1: A: Contextual reference

Computers are electronic machine that process information. They are capable of communicating with the user, or doing different kinds of arithmetic operations and of making three kinds of decisions. However, they are incapable of thinking. They accept data and instructions as input and after processing it, they output the results.

Structure 1: B: Making Comparison

- one syllable
  - -er/-est

	Absolute	Comparative	Superlative
Adjectives	new old big	newer older bigger	newest oldest biggest
Adverbs	soon late	sooner later	soonest latest

Mike is **older than** his sister.
Computer technology is **the fastest** growing technology in the world today.

Structure 1: B: Making Comparison

- one syllable
  - -er/-est
- three or more syllables
  - more/most

	Absolute	Comparative	Superlative
Adjectives	interesting convenient beautiful	more interesting more convenient more beautiful	most interesting most convenient most beautiful
Adverbs	easily carefully	more easily more carefully	most easily most carefully

Structure 1: B: Making Comparison

- one syllable
  - -er/-est
- three or more syllables
  - more/most
- two syllables
  - -er/-est (end in –y/-ly/-ow/-le/-er)

	absolute	comparative	superlative
-y	happy funny	happier funnier	happiest funniest
-ly	early friendly	earlier friendlier	earliest friendliest
-ow	shallow narrow	shallower narrower	shallowest narrowest
-le	able gentle	abler gentler	ablest gentlest
-er	clever	cleverer	cleverest

Structure 1: B: Making Comparison

- one syllable
  - -er/-est
- three or more syllables
  - more/most
- two syllables
  - -er/-est (end in –y/-ly/-ow/-le/-er)
  - More/most Adverb end in –ly

quickly	more quickly	most quickly
slowly	more slowly	most slowly
badly	more badly	most badly

Structure 1: B: Making Comparison

- one syllable
  - -er/-est
- three or more syllables
  - more/most
- two syllables
  - -er/-est (end in –y/-ly/-ow/-le/-er)
  - More/most Adverb end in –ly
  - Both forms some adjectives
    - Common/handsome/polite/quiet

Structure 1: B: Making Comparison

- one syllable
  - -er/-est
- three or more syllables
  - more/most
- two syllables
  - -er/-est (end in –y/-ly/-ow/
  - More/most Adverb end in -
  - Both forms some adjective
    - Common/handsome/polite/
  - Different stem

	absolute	comparative	superlative
adjectives	bad	worse	worst
	far	further/farther	furthest/farthest
	good	better	best
	many	more	most
adverbs	badly	worse	worst
	far	further/farther	furthest/farthest
	little	less	least
	much	more	most
	well	better	best

Structure 1: B: Making Comparison (Equivalence)

as … as	به همان اندازه	are similar	شبیه به هم هستند	each	هرکدام
as many … as	به همان اندازه	equal to	مساوی با	either	هر یک
as much … as	هم مقدار	is like	شبیه است	all	همه
the same … as	هم اندازه	similar/ly	به‌طور / مشابه	both	هر دو
similar to	شبیه به	equal/ly	به‌طور/ مساوی	alike	شبیه
the same	مثل هم	compare to/with	در مقایسه با / با		

Third-generation computers can do a thousand times **as many** calculations **as** first-generation computers.
Microcomputers are **as** efficient **as** minicomputers.
All computers have **the same** basic characteristics.

Structure 1: B: Making Comparison (Non-equivalence)

more … than	تر از
not as … as	نه به همان اندازه
greater than	بزرگتر از
unequal(ly)	به‌طور نابرابر
word + er than	لغت + تر از
not as many … as	نه همانقدر
unlike	برخلاف

neither … nor … as	مثل .... نه .... نه
not the same as	نه مثل هم
fewer than	کمتر از
not as much … as	نه همانقدر
not all	نه همه
less than	کمتر
not equal to	نه مساوی با

Learning a computer language is **not as** difficult **as** it seems.

Structure 1: B: Making Comparison (Parallel increase)

- the (word+er) the … the more ….
- the (word+er) the … the less ….

- **The bigger the** computer, **the more** complex the operations it can do