



English for Computer Science and Engineering

Unit 4

Processor Design

| | | |
|-----------------------|------------------------------|----------------------|
| thereby | because of that | در نتیجه |
| throughput | rate of transfer | گذردهی، توان عملیاتی |
| realize | understand | دریافتن |
| significantly | in an important manner | به طور اهم |
| burden | load | بار |
| proponent | supporter, advocate | طرفدار |
| simultaneously | concurrently | به طور همزمان |
| portion | part, piece | بخش |
| net | final (about weight, profit) | خالص |

Processor Design

| | | |
|----------------------|---|------------------|
| referred to | mentioned | ارجاع داده شده |
| massively | enormously | زیاد ، بیش از حد |
| capacity | volume which can be contained or received | ظرفیت-گنجایش |
| challenge | difficult and stimulating task | چالش |
| confront with | face | مواجه شدن با |
| suit | fit, match | مناسب بودن |
| attempt | try, effort | تلاش کردن |
| mimic | imitate | تقلید کردن |
| incredible | unbelievable | باورنکردنی |

Processor Design

| | | |
|--------------------|--------------------------------------|------------------------|
| equivalent | equal in worth or value | معادل |
| sphere | globe, orb | جسم کروی محدوده، حوزه |
| crop | harvest, produce | محصول |
| rotation | set order in which events take place | گردش |
| forecast | foretell, predict | پیش بینی کردن |
| fluctuation | instability, change | نوسان |
| outperform | exceed in performance | برتری یافتن |
| accurate | precise, exact | دقیق |
| live up to | fulfill someone's expectations | برآورده نمودن انتظارات |

Processor Design

crowd

public

ازدحام

Should PC Ownership Be an Entrance Requirement for Colleges?

| | | |
|------------------------|--------------------------|------------------|
| tighten | make tight | محکم کردن |
| competitive | tending to compete | رقابتی |
| prerequisite | prior condition | پیش نیاز ، لازمه |
| admission | permission to enter | پذیرش |
| versatile | multi-purpose | متنوع |
| stand-alone | be one of a kind | مستقل |
| lounge | lobby | سالن استراحت |
| bibliography | list of source materials | کتاب شناسی |
| correspond with | related to | مرتبط با |

Language focus D

Organizing information

A paragraph is a group of related sentences that develop an idea. In nearly every paragraph, there is one idea that is more important than all the others. The main idea of the paragraph is usually found at the beginning.

Sample paragraph 1:

All computers, whether large or small, have the same basic capabilities. They have circuits for performing arithmetic operations. They all have a way of communicating with the person(s) using them. They also have circuits for making decisions.

In sample paragraph 1, the first sentence, *All computers, whether large or small, have the same basic capabilities.* expresses the main idea of the paragraph.

All main idea sentences have a topic and say something about the topic.

Example:

All computers [topic], *whether large or small, have the same basic capabilities* [about the topic].

In some of your reading, finding main ideas may serve your needs but, in much of your studying, you need to understand details. It is sometimes more difficult to understand details than main ideas. You will find it helpful if you think of details as growing out of the main idea. In sample paragraph 1, there are three major details growing out of the main idea. These are the major details:

- 1 *They have circuits for **performing arithmetic operations.***
- 2 *They all have a way of **communicating with the person(s) using them.***
- 3 *They also have circuits for **making decisions.***

A major detail often has minor details growing out of it. These minor details tell more about a major detail, just as major details tell more about a main idea. In studying, you often find a paragraph that has many small details that you must understand and remember. Breaking up a paragraph of this kind into its three components: the main idea, major details, and minor details will help you to understand and remember what it is about.

Sample paragraph 2:

It is the incredible speed of computers, along with their memory capacity, which makes them so useful and valuable. Computers can solve problems in a fraction of the time it takes man. For this reason, businesses use them to keep their accounts, and airline, railway, and bus companies use them to control ticket sales. As for memory, modern computers can store information with high accuracy and reliability. A computer can put data into its memory and retrieve it again in a few millionths of a second. It also has a storage capacity for as many as a million items.

If you were to organize this paragraph into its three components, it would look like this:

Main idea

It is the incredible speed of computers, along with their memory capacity, which makes them so useful and valuable.

Major details

Computers can solve problems much faster than humans.

Modern computers can store information with high accuracy and reliability.

Minor details

Businesses use them to keep accounts.

Transport companies use them to keep track of ticket sales.

A computer can put data into its memory and retrieve it again in a few millionths of a second.

It also has a storage capacity for as many as a million items.

In making a block diagram you don't have to write every word in the main idea sentence or in each of the detail sentences.

Exercise 1

Practise finding the main idea, major details, and minor details by completing the block diagram after reading the following paragraph.

The computer has changed the production of copy in the newspaper industry. There are three steps involved in the process: input, correction, and output. First, the computer numbers each story, counts words, and gives a listing of the length of each story. Then, a page is made up, advertisements are placed in, the copy is shifted or deleted, and corrections are made. Finally, the computer hyphenates words, and the result of all this is a newspaper page.

Main idea

The computer has changed the production of copy in the newspaper industry.

Major details

Minor details

Exercise 2

Practise finding the main idea, major details, and minor details by completing the diagram after reading the following paragraph.

Railway companies use large computer systems to control ticket reservations and to give immediate information on the status of their trains. The computer system is connected by private telephone lines to terminals in major train stations, and ticket reservations for customers are made through these phone lines. The passenger's name, type of accommodation, and the train schedule is put into the computer's memory. On a typical day, a railway's computer system gets thousands of telephone calls about reservations, space on other railways, and requests for arrivals and departures. A big advantage of the railway computer ticket reservation system is its rapidity because a cancelled booking can be sold anywhere in the system just a few seconds later. Railway computer systems are not used for reservations alone. They are used for a variety of other jobs including train schedules, planning, freight and cargo loading, meal planning, personnel availability, accounting, and stock control.

Main idea

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Major details

| | |
|-----------------------------------|--|
| Terminals for ticket reservations | |
|-----------------------------------|--|

Minor details

| | | |
|--|--|--|
| | Thousands of calls for reservations, space, arrivals, and departures | |
|--|--|--|

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