2020

English for
Informatics Engineering 1

WWW

Siti Kustini

ENGLISH FOR INFORMATICS ENGINEERING 1

UU No 28 tahun 2014 tentang Hak Cipta

Fungsi dan sifat hak cipta Pasal 4

Hak Cipta sebagaimana dimaksud dalam Pasal 3 huruf a merupakan hak eksklusif yang terdiri atas hak moral dan hak ekonomi.

Pembatasan Pelindungan Pasal 26

Ketentuan sebagaimana dimaksud dalam Pasal 23, Pasal 24, dan Pasal 25 tidak berlaku terhadap:

i.   Penggunaan kutipan singkat Ciptaan dan/atau produk Hak Terkait untuk pelaporan peristiwa aktual yang ditujukan hanya untuk keperluan penyediaan informasi aktual;

ii. Penggandaan Ciptaan dan/atau produk Hak Terkait hanya untuk kepentingan penelitian ilmu pengetahuan;

iii. Penggandaan Ciptaan dan/atau produk Hak Terkait hanya untuk keperluan pengajaran, kecuali pertunjukan dan Fonogram yang telah dilakukan Pengumuman sebagai bahan ajar; dan

iv. Penggunaan untuk kepentingan pendidikan dan pengembangan ilmu pengetahuan yang memungkinkan suatu Ciptaan dan/atau produk Hak Terkait dapat digunakan tanpa izin Pelaku Pertunjukan, Produser Fonogram, atau Lembaga Penyiaran.

Sanksi Pelanggaran Pasal 113

1. Setiap Orang yang dengan tanpa hak melakukan pelanggaran hak ekonomi sebagaimana dimaksud dalam Pasal 9 ayat (1) huruf i untuk Penggunaan Secara Komersial dipidana dengan pidana penjara paling lama 1 (satu) tahun dan/atau pidana denda paling banyak Rp100.000.000 (seratus juta rupiah).

2. Setiap Orang yang dengan tanpa hak dan/atau tanpa izin Pencipta atau pemegang Hak Cipta melakukan pelanggaran hak ekonomi Pencipta sebagaimana dimaksud dalam Pasal 9 ayat (1) huruf c, huruf d, huruf f, dan/atau huruf h untuk Penggunaan Secara Komersial dipidana dengan pidana penjara paling lama 3 (tiga) tahun dan/atau pidana denda paling banyak Rp500.000.000,00 (lima ratus juta rupiah).

Siti Kustini, S.Pd., M.Pd.

ENGLISH FOR INFORMATICS ENGINEERING 1

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UCAPAN TERIMA KASIH

Ucapan terima kasih kami sampaikan kepada Poliban Press karena telah mempercayakan proses percetakan buku *English for Informatics Engineering 1* kepada Penerbit Deepublish. Semoga buku ini dapat memberikan manfaat kepada seluruh pembaca dan kerja sama ini dapat terus terjalin.

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FOREWORD

Praise the presence of Allah SWT for its abundance of grace and so that in the 2020 English for Informatics Engineering 1 can be completed. This book is specially designed for students of Banjarmasin State Polytechnic.

Thank you to Joni Riadi S.ST., MT as Director of the Banjarmasin State Polytechnic and Nurmahaludin, ST, MT as Chair of the Research and Community Service Center along with their secretaries and staff. Thank you also to Faris Ade Irawan, Reza Fauzan, Eko Sabar Prihatin and Rahma Indera who have contributed to the editing and the entire Poliban Press team and all those who have helped in the completion of this book.

We realize that there are still shortcomings in this book for that criticism and suggestions for improving this book are highly expected. Hopefully this book can provide benefits for Polytechnic students in particular and for all those who need it.

Banjarmasin, October 2020

Chief of the Poliban Press

PREFACE

To the teacher

English for ICT Engineering is a course book designed for false beginner students taking ESP course in the Information and Technology Engineering Study Program. This book offers easy-to-follow learning materials in which the activities are arranged in such a way to assist students develop their English language competence and creativity and innovative skills in using this language. This book contains seven units of lessons covering a wide range of current ICT topics, using authentic texts and visual materials taken from textbooks, Internet newsgroup, webpages, manuals, and advertisement.

Each units of this book provides activities in the form of tasks in which students can be actively engaged in their learning. The language skills are presented in integrative way that students might read and take notes, listen and write a summary, or respond orally to things they have read or written.

The topics presented in this book is sequentially arranged to achieve the stated objectives. The materials are authentic exposing students to language in authentic use, maximize learning potential by encouraging intellectual, aesthetic, and emotional involvement that stimulates both right and left brain activities.

Hopefully this book will prove students with materials to enrich their knowledge, make their English better, and improve their creativity and thinking capacity skill. Constructive suggestions and prolific inputs are welcome to make this learning materials more appropriated for ESP diploma students majoring in ICT Engineering.

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Target learners

Type of learners	Students of ICT Engineering; Computer Science
Level of learners	Beginners and lower-intermediate
Age range of learners	16+
Requirements	Learners must have studied at least three years or more of general English

Target Teachers

Type of teachers	Teachers of English for specific purposes, or experienced teachers
Teacher's certificate type	At least four-year program graduates with interest in the field itself

Targets teaching contexts

Intended teaching situation(s)	Most of the tasks in this book require pair and group working situations

Purpose(s) of the course designed for	ESP mainly students of ICT Engineering
Syllabus type	Process-oriented syllabus, more specifically task-based syllabus, more focus on communicative aspects of language.
Aims of the textbook	General objective of the course of this book is to develop students' language skills in the context of ICT engineering.

Component/supports for teachers

Inclusion of tests	The teacher can choose from among the provided tasks in each and every unit with slight changes
Availability of workbook	Both the textbook and the workbook are integrated in one book
Layout of the textbook	The book is psychologically, mentally, and visually attractive; it is full of visual aids showing computer and its anatomy and other related technologies

Topics

Organization of the topics and sequence	The topics in this book are sequentially organized from the general topics to the specific ones.
Types of language	The language used in this book is simple except the use of the terms related to information technology.
Gained knowledge, issues awareness and experience	The learners will not only learn the language. The huge number of ICT terms and the challenging tasks presented in this book will provide them insightful experience that may be useful for their real life situations.

Context

Appropriateness of grammatical items	The grammatical items are introduced under the subheading title of 'Language Work'. The grammatical items are selected in such a way to suit learners' needs and the general and specific objectives of the course as well.
Focus: forms/functions or	More focus is on functions, but forms are not ignored.

both	
Appropriateness of the content in general	The content is to a great extent appropriate. It has various topics, various types of tasks and materials which can the learners and the teacher as well interact with the course.
Communicatively of the textbook	The attractive design of this book makes it communicative.
Clearness of layout and presentation of the textbook	This book is presented in a clear, well-organized, and attractive way.

Methodology

Language learning approach used	Communicative approach in tandem with content-based approach is applied in this book as most of the tasks and activities in the books promote, encourage, and require group working. The students are required to produce new items, and are greatly encouraged to use their cognitive ability.

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CHAPTER 1
PERSONAL INFORMATION

Learning Outcomes:
1. Students are able to identify expressions used in giving and asking for personal information.
2. Students are able to use the expressions used in giving and asking for personal information.
3. Students are able to recognize language pattern to give and ask for personal information.

Content

1.1. Personal Information

When you meet people for the first time, what do you usually tell them about yourself? What do people want to know about you? Your name is probably the first thing you will tell them. Besides your name, you may also give information about your occupation, address, place of origin, and sometimes hobbies and interests. You give *personal information* when you tell people about yourself.

Activity 1. Identifying Situations

Now, let's take a look at some phrases showing situations. Can you identify the situations in which people may give their personal information? Put a check mark (√) in the space provided before each situation.
- filling out forms
- holding a routine meeting
- writing the first letter to a pen pal

- introducing yourself
- meeting an old friend
- being interviewed for a job
- shopping
- being a guest on a talk show

Activity 2. Identifying Questions about Personal Information

Go over the items of personal information in the cluster below.
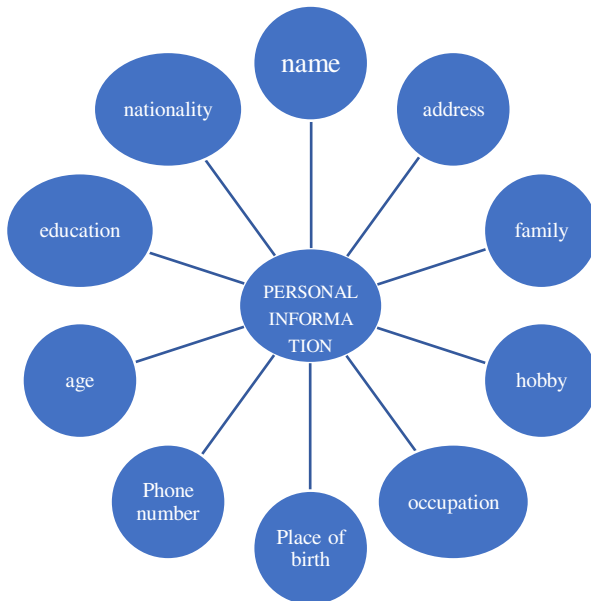
Activity 3. Identifying Items of Personal Information in Dialogs

Underline the items of personal information in the dialogs.

1. ***Situation: Mr. Chamcoy is meeting a company visitor from Singapore at Juanda Airport.***

Mr. Chamcoy : Excuse me, are you Mr. Chang from Jardine Company?

Mr. Chang : Yes, that's right

Mr. Chamcoy	:	I'm Chamcoy Singh from Astra Group
Mr. Chang	:	How do you do?
Mr. Chamcoy	:	Pleased to meet you. Welcome to Surabaya, Mr. Chang.

2. **Situation: Jennifer Cole is a new student at the Indonesian Arts Institute (ISI) Yogyakarta. She wants to make as many friends as possible. She introduces herself to Farida.**

Jennifer	:	Hi! My name's Jennifer Cole.
Farida	:	Hello. I'm Farida.
Jennifer	:	Nice to meet you, Farida.
Farida	:	Same here. Just call me Ida. Are you from the States, Jennifer?
Jennifer	:	Yes, from Denver.
Farida	:	Oh, that's in Colorado, right?
Jennifer	:	That's right.
Farida	:	You're a student here?
Jennifer	:	Yeah! I'm studying Javanese music. What do you call? Kara....?
Farida	:	Karawitan. How do you like it?
Jennifer	:	Oh, it's great. And what about you? What's your major?
Farida	:	I study choreography.
Jennifer	:	Hey, that's interesting!

1.1.1. Expressions Used in Giving Personal Information

You have looked at dialogs in which people ask for and give personal information. Did you notice that they use different expressions? Let's take a closer look at some of those expressions.

Mentioning your name	*I am Puteri Rahmalia*
	My name is Desy Pradipta
	My friends call me Puteri
	Call me Desy

PERSONAL INFORMATION

Referring to your occupations	*I am a student from SMU 2* *I'm a bank engineer* *I work as a consultant for the Department of Finance*
Talking about your place of origin	*I'm from Balangan* *I come from Banjarbaru*
Mentioning your address	*I live in Banjarmasin* *I live at Jl. Cendana* *My address is West 121st. Street, Apt.#303, New York, N.Y. 10034, USA*

Now look at examples of how people give personal information.

1. My name is Alexandra Morton. My friends call me Sandra. Originally, I am from Seattle, Washington. But now I live in Los Angeles, California. My address is 435 North Flower Street.
2. May I introduce myself? My name in Kotoko. I'm from Osaka, Japan. I'm a marketing manager and I work for PT. Jaya Obayashi. On Saturdays, I usually play bowling.
3. Hello, I'm Nurul Komariah. My friends call me Nur. I live on Jl. Cempaka in Banjarmasin. Just in case you want to call me, my phone number is 252371. I am an economic student at Lambung Mangkurat University. Every morning I go to my college on my motorbike. I like sports very much. On Sundays, I usually go swimming with my friends. Care to join me?

Activity 4. Compiling Personal Data

Now, compile data about what each person in the passage told you; then write the information in the grid below. Not all of the personal item can be filled in. One has been done for you

PERSONAL INFORMATION ITEMS

Name	Alexandra	Kotoko	Nurul
Nickname	Sandra		
Place of origin			
Occupation			
Address			
Phone number			
Hobby			

1.1.2. Expressions Used in Introducing Yourself

When you meet people for the first time, you usually introduce yourself. Opening a conversation with people you haven't met before is an important part of socializing.

Look at how the people in the following dialogs introduce themselves.

1. A : Hi, I'm Jennifer.
   B : Nice to meet you. I'm Purwati.
2. A : Hello, my name's Rossi. What's yours?
   B : Indah.
3. A : May I introduce myself? I'm Ben.
   B : Pleased to meet you. My name's Erika.
4. A : How do you do? I'm George Brown.
   B : My name's Rudi. How do you do, Mr.Brown?
   A : Please call me George.

1.1.3. Talking About Yourself

In the passage of the next page, see if you can understand the personal information given by Devina Sari. She has won the first prize in a fashion design contest. She is now being interviewed by a woman's magazine. Here is what she tells the reporter.

My full name is Devina Sari Suroso, but most people call me Devi. I come from a family of five. I have two older brothers. My parents are from East Java, but my brothers and I were born in Banjarmasin.

Both my parents are artists. One of my brothers is an art director for an advertising company. Art seems to run in the family. I myself studied fine arts, and I now work as a fashion designer in this boutique.

I have been with this boutique for almost six years now. I love my job very much, because I can be creative in designing new styles of dresses. I draw the designs myself. I even choose the fabrics, patterns and colors for the clothing. My boss likes my work. Someday I hope to have my own boutique.

I work long hours, but in my leisure time, I like to visit textile museums. I like reading books, especially about traditional batik patterns and designs. Sometimes I go to movies or eat out with my boyfriend, Agus. We plan to get married next year.

Activity 5. Identifying True and False statements.

To check your comprehension of the reading passage, read the statements below. Then, write '*T*' in the blank if the statements is true according to the passage, or '*F*' if the statement is false.

1. Devi is a fashion model.   ....
2. She works for a women's magazine   ....
3. Devi's parents come from East Java   ....
4. She is also from East Java   ....
5. Her brother works for an advertising company   ....
6. Devi designs dresses   ....
7. Her boss appreciates what she is doing   ....
8. Devi owns the boutique   ....
9. One of her hobbies is listening to music   ....
10. Devi is still single   ....

1.1.4. Expressions Used in Asking for Personal Information

You have just given information about yourself, and your classmates know your name, where you live, maybe even your phone number. But you yourself may also want to know more about them. What is it that you want to know? Do you know how to ask the right questions?

Go over the question below and see how people usually ask for personal information.

Name
What's your name?
May I know your name?
Could you tell me your name?
Are you Mrs. Kartono

Address
Where do you live?
What's your address?
Do you live in Kebayoran?
Whereabouts in New York do you live?

Occupation
What's your job?
What do you do?
What's your present occupation?
What kind of work are you in?
Are you a teacher?

Hobbies
What are your hobbies?
How do you spend your leisure time?
Are you interested in sports?
What do you do for fun?

Place of origin
Where are you from?
Where do you come from?
Where were you born?
Do you come from West Java?

Activity 7. Asking for Personal Information
Go over the reading passage of Devita Sari once more. Then pretend you are the reporter from the women's magazine. What questions would you ask Devi? Read her answers and fill the blank spaces with your questions. You can ask for information not given below.

PERSONAL INFORMATION

Reporter : Good afternoon, I'm .... (your name), from
.... (name of magazine). Are you Devita?
Devi : Yes, but please call me Devi.
Reporter : ....?
Devi : Devita Sari Suroso.
Reporter : ....?
Devi : I was born here in Banjarmasin, but my parents are from
East Java.
Reporter : ....?
Devi : I'm a fashion designer for Elsa Boutique.
Reporter : ....?
Devi : Well, sometimes I go to textile museums to find inspiratio,
or read books about traditional batik patterns and designs.
Reporter : ....?
Devi : ....?
Reporter : Thanks for your time, Devi.
Devi : You're welcome. Bye.

Activity 8. Exchanging Personal Information

Now that you know how to ask and give personal information, don't you want to get better acquainted with your classmates? Choose one person that you want to know better, and exchange information with him or her.

1.2. Grammar Focus: Verbs

When we give personal information in English, we usually complete sentences. A complete sentence has a verb. Look at the examples below.

- ❖ My name <u>is</u> Endah. My friends <u>call</u> me Een.
- ❖ Adi <u>is</u> an accountant. He <u>works</u> for Commonwealth Bank.
- ❖ I <u>live</u> in Cirebon. My address <u>is</u> Jalan Ciung.
- ❖ Duta and Eros <u>are</u> students. They <u>go</u> to ISI.
- ❖ I <u>am</u> an architect. I <u>have</u> my own consulting company.

1.2.1. Asking and Answering Yes/No Questions Using the Verb *be*.
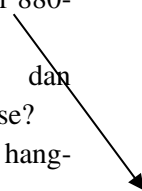
When you want to ask Yes/No questions with be, you should put the forms of the verb be (e.g. am, is, are) in front of the subject. Short answers can be used in answering the questions; sometimes other information is added.

Examples:
- ❖ Are Ridha and Joe friends?

  Yes, they are.
- ❖ Is Tyas an engineer?

  No, she's an MD.
- ❖ Is cooking your hobby?

  Yes, it is. But I like sewing,too.
- ❖ Is your address Jalan Melati No.10?

  No, It isn't. I live at Jalan Kamboja No. 10.
- ❖ Are you an architect?

  No, I'm not. I'm an artist.
- ❖ Is Adi an accountant?

  He is, and a very good one.

  He is. A very good one.

Activity 9. Matching questions with answers

See how good you are with short answers. Match each question with its appropriate answer by drawing a line. An example is given.

1. Is your fax number 880-3044?	a) Yes, It is. I am crazy about it.
2. Are Yohan dan Martinus Ambonese?	b) No, I wasn't. My brother was born there.
3. Is your hobby hang-gliding, too?	c) Yes, they are. They perform at the Hyatt Regency.
4. Were you born in L.A.?	d) Yes, that's the right number.
5. Is your office on Jalan Thamrin?	e) No, I'm not. But I often go there.
	f) Yes, but we call her Kiki.

6. Are they musicians?	g) Oh, yes. She's a black belt.
7. Is Tuti a Karate expert?	h) No, they arent. They come from East Timor.
8. Are you all English teachers?	i) No, it isn't. It is on Jalan Brigjend. Hasan Basry.
9. Is her name Kartika?	
10. Are you from Medan?	j) No. Some of us teach Arabic.

1.2.2. Appropriate Questions About Personal Information

What items of personal information do people exchange with one another they meet for the first time? Usually, it is up to us what we want to tell others about ourselves. At the same time, we cannot ask our new acquaintance just any question that we want to.

Activity 10. Identifying appropriate questions

The questions below all ask for personal information. Some questions are common in general situation, such as when people meet for the first time; others are considered not so appropriate. A question that is considered appropriate to Indonesians may sound strange to a foreigner.

Go over the questions, then put a check mark (√) in front of each question that you find appropriate for the first meeting.

.... 1 What's your name?
.... 2 Are you here with your family?
.... 3 Are you married?
.... 4 How old are you?
.... 5 What do you do?
.... 6 Can I drop by some time?
.... 7 What kind of shampoo do you usually use?
.... 8 Would you tell me about your work experience?
.... 9 What do you like to do in your leisure time?
.... 10 Where do you come from?
.... 11 Do you exercise enough?
.... 12 Do you get along with your boss?

Some questions may be considered inappropriate for general situation; however, the same questions may be appropriate in a specific situation. For instance, the question "*how old are you?*" is not commonly asked for the first meeting; but it is all right when a doctor asks his patient this question.

Summary

This chapter sheds light on how to give and ask for personal information. When making an introduction in any language, we need to know the formulas and rules for doing it. A formal introduction consists of two parts: giving the names and, if not provided by the context, some information about the people being introduced so they will have some common ground to begin a conversation. People must sometimes introduce themselves: for example, at a party, in a new class, or in a new neighborhood.

Practice Exercise

Directions: For each situation that follows, read the cues given, then complete the dialogue with any appropriate response.

Situation 1

A : _____

B : Nice to meet you, Miss Douglas.

C : _____

B : I'm a mechanical Engineering

C : _____

B : _____

Situation 2

Greg   :   Susan, I'd like you to meet Alice Carter, a good friend of mine.

Susan :   _____

Alice   :   _____

Susan :   Greg's told me a lot of good things about you, Alice.

Alice   :   _____

Situation 3

A   :   Hi, I guess I don't know you. My name's _____

B   :   _____

A   :   _____

B   :   _____

CHAPTER 2
GIVING INSTRUCTIONS

Learning Outcomes:
1. Students are able to identify words related to computers.
2. Students are able to give instructions related to computers.
3. Students are able to construct sentences on giving instructions.

Content

2.1. Pre-Activity
1. **Match the words with their meaning**.

disc (CD)	icon	mouse	modem	menu
desktop	keyboard	key	cursor	printer

a. equipment for sending information from one computer to another
b. the picture, icons and words on a computer screen
c. the row at the top of a computer screen saying what you can do
d. a sign on a computer screen that you click on to make it do something
e. equipment with letters, numbers and signs you use to work a computer
f. the machine that puts words and pictures from your computer on paper
g. equipment you press with your finger to click on computers icons
h. the small arrow you move with the mouse on a computer screen
i. a round, flat piece of plastic for storing information from a computer
j. one part with a letter, number or sign on a keyboard

2. **Label the parts above on this drawing**.
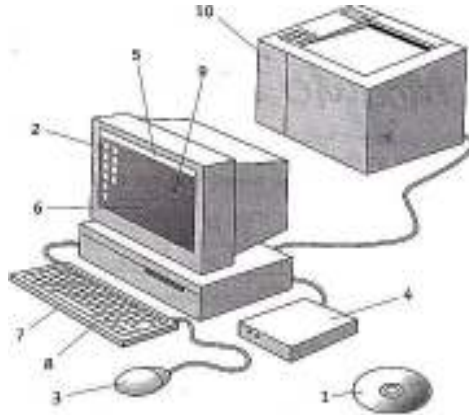
3. **Explain the difference between these computers.**
   A personal computer (PC) A laptop

4. **The computer words (in italics) are all in the wrong sentences, cross them out and write them in the correct sentences.**
   1. I got a really interesting ~~Internet~~ email from my friend.
   2. Click on the Internet icon with the *keyboard* _____
   3. Before you print anything check that the *email* _____ is on.
   4. You can get a lot of information from the *mouse*_____
   5. The first letter on the *screen* _____ is Q and the last one is M.
   6. You can see a lot of icons on the *printer* _____

2.2. Giving Instructions

You often see the imperative form in instruction manuals or when someone tells you how to do something.
There are often "sequencing" words to show the steps in the process. For example, "firstly", "secondly" and "finally"

Practice examples on how to give instructions

Simple instructions to replace a light bulb

Firstly, turn off the electricity.
Secondly, remove the light bulb.
Then, screw in the new light bulb.
Finally, turn the electricity on and switch on the light.

You can also say "after that" instead of "then" and "first" / "second" instead of "firstly" and "secondly".

Simple instructions to use a digital camera

First, you need to turn on the power.
Then, you can ~~see~~ **look at** the display and focus on the view **or object** you like.
To Focus, just press the shutter button half way and the camera will automatically focus for you.
After that, you just all you need to do is to push the ~~ta~~ke-picture shutter button.
There you have it!

Simple instruction to calculate the standard deviation
First, put the scores in order down the page.
Then, work out the mean.
Now calculate how much each deviates from the mean.
Next, square each of these deviations.
Add them all up.
Now divide by the number of scores.
Lastly find the square root.
This is the standard deviation.

Practice Exercise

1. *Write the instructions under the correct picture. Use the words in italics to help you.*

How to receive emails

a. *Then* you click on the Send and Receive button in the program.
b. To receive email, *first* switch on the computer.
c. When you see a message, like this –'You have 2 emails'- you know there are emails for you.
d. *Before* you can receive email, you have to start your email program.
e. *Lastly*, you can print the emails.
f. *After that*, you read the emails by clicking on them. That opens them.

2. *Circle the correct preposition.*
   1. When you have sent the email, please switch *out/off* the computer.
   2. Click *on/in* that icon to empty the recycle bin.
   3. There is so much information *on/in* the internet.
   4. Did you plug *in/to* your computer
   5. Please, turn the volume *down/up*! It's very noisy.
   6. Remember to take the disk *out/off* of the modem
   7. Press this key to change *to/for* capital letters
   8. Always sit *at/on* your desk with your back straight.
   9. Sign *in/up* for our free trial of the best ever email server.
   10. Get *on/at* Broadband and use your phone and email at the same time.

3.   *Use the words in the box to fill in the gaps.*
                and, before, but, finally, first, for example,
                    however, maybe, or, too

So, you want to buy a personal computer? Well, here's my advice. (1) _____ , decide what you want to use the computer for. Do you want to surf the Internet, send (2) _____ receive emails (3) _____ play computer games? (4) _____ you want to write your homework on it. There's no point in buying a computer that doesn't allow you to do things you want (5) _____ you have to think of new tasks you can do later, (6) _____ . (7) _____ , you may want to download music from the Net. (8) _____ , don't spend a lot money on a powerful computer that has options you have no interest in. Make a list of reasons why you need a computer (9) _____ you go shopping. (10) _____, discuss your needs with the shop assistant.

4.   *Use the diagram to complete the instructions and the instructions to complete the diagram.*
                   How do You Get E-Mail?
Instructions

Diagram 1   Diagram 2
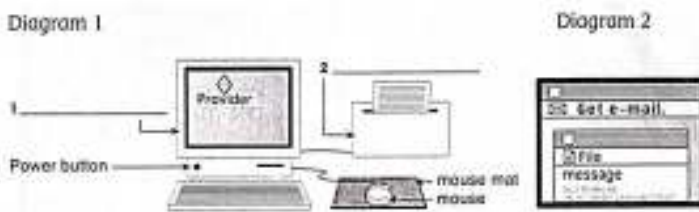
5.   Press the _____ button under the screen. Don't touch the printer, on the right of the computer.
  1. Move the _____ on the mouse mat until the arrow points to 'Provider'.

2. Click on 'Provider' with the mouse and you get a new screen (look at the second diagram).
3. On the new screen click on 'Get _____'.
4. When you see the E-mail message click on _____ in the little box.

6. *Next week Laura is staying with Jane in the north of England. Before she goes, she is showing her father how to download her e-mails.*
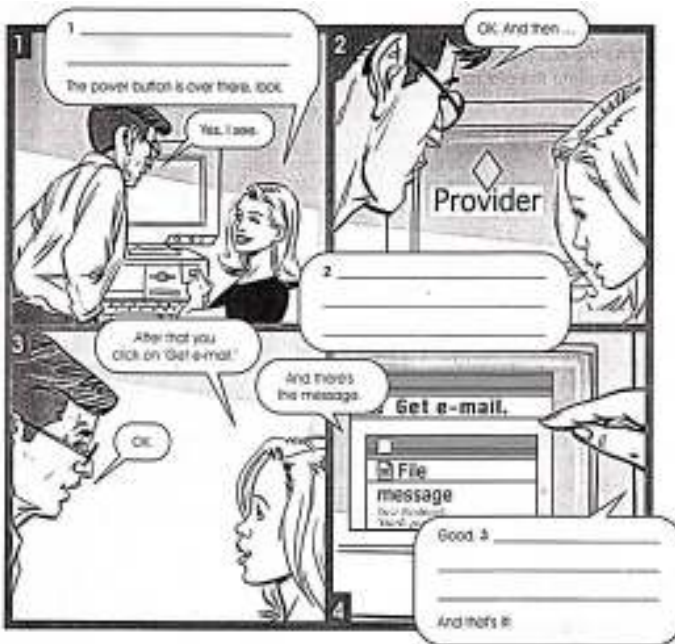
7. *Put the sentences together in the correct order.*

Example:

You file it.

You look at the e-mail message. (and after that)

You look at the e-mail message and after that you file it.

1. You wait for the computer to be ready.
    You press the power button. (first, secondly)
2. You move the mouse on the mouse mat.
    You see the arrow on the screen. (and then)
3. You click the mouse.
    You access the provider. (and after that)
4. You get the message on the screen.
    You print it. (and then)
5. You read them.
    You do all these things to download your e-mails. (and lastly)

8. Work with a partner. Write instructions for doing something. You *can* write instructions to use any machine, like a car or a mobile phone. You can write instructions to cook something (a recipe)

Summary

This chapter discusses computer words and covers some practice exercises to enhance the skills enabling us to bring those words under appropriate contexts. It also presents the language patterns for giving instructions. Connection words, such as *first, next, then, after that, finally* are highly emphasized in this chapter as they are essential terms for constructing meaningful instruction sentences.

CHAPTER 3
COMPUTER APPLICATIONS

Learning Outcomes:
1. Students are able to comprehend the use of computer technology in many aspects of human life.
2. Students are able to scan and skim information from pictures and texts.
3. Students are able to construct the basic sentence structure of English language.

Content

3.1. Pre-Reading Activity

Observe these pictures carefully. What kinds of activity that those people are doing? Do you think that these activities involve computer?

3.2. Vocabulary Zone

Here are some vocabulary items from the reading selection. Find them in the text and circle the vocabulary that you are not familiar with.

perform (Verb)	carry out (Verb)
solve (Verb)	dispense (Verb)
database (Noun)	store (Verb)
access (Verb)	

3.3. Reading Zone

Read the following selection. Then, answer the questions after the reading. You can work with a partner.

HOW DO PEOPLE USE COMPUTER?

People use computers in many ways. At school, students use them to perform mathematical operations and solve difficult questions. Teachers use them to teach courses such as computer aided design, language learning, programming, mathematics, etc. Meanwhile, they are also used for administrative purposes: for
5 example, schools use databases and word processors to keep records of students, teachers and materials.

Race organizers and journalists relay on computers to provide them with the current positions of riders and teams in both the particular stages of the race and in overall competition. Workstations in the race buses provide the timing systems and give up-to-the-
10 minute timing information to TV stations. In the press room several PCs give real-time information on the state of the race. Computers databases are also used in the drug-detecting tests for competitors.

Computers are also used in banks. They store information about the amount of money held by each client and enable staff to access large databases and to carry out financial transactions at a high speed.
15 They also control the automatic cash dispenser, which by the use of a personal coded card, dispense money to clients.

Airline pilots use computers to help them control the plane. For example, computers display data about fuel consumption and weather conditions, in airport control towers, computers are used to manage radar systems and regulate air traffic. On the ground, airlines are

20   connected to travel agencies by computer. Travel agents use computers to find out about availability of flights, prices, times, stopovers and many other details.

Check Your Comprehension

Part 1: Read the information below and check whether it is true or false. Read the text again.

1. Students use computers to complete their tasks.
2. One advantage of computer for teachers is that it can be used as teaching aid.
3. Reporters use computers to supply only information of a particular competition stage.
4. What makes up-to-the-minute timing information about a competition to TV possible is the use of workstations
5. Computer cannot detect whether an athlete use drugs. No tasks within a bank can be done using computers
6. One must follow the phases in the waterfall model somehow in a sequential manner.
7. Bank uses computers to finish financial transactions in a short time.
8. Airplane are equipped with computers to make the pilot easier to monitoring the fuel and whether conditions.
9. Computers can be used to handle the air traffic.
10. It is impossible to use computers in flight business.

Part 2: Guessing Meaning from Context
     Read the sentences below. Go back to the text again and find them. Read the sentences before and after. Write the meanings of the underlined words using the available words.

- Information
- Connected with money
- Keep (save)
- Linked

- Execute (do)
- Self-acting, Mechanical
- Screen

- Powerful computer usually connected to a network
- Program used for text manipulation

1. Students use them to <u>perform</u> mathematical operations and solve difficult questions.
   Perform:
   _____

2. <u>Workstations</u> in the race buses provide the timing systems and give up-to-the-minute timing information to TV stations.
   Workstations:
   _____

3. Meanwhile, they are also used for administrative purposes: for example, schools use databases and <u>word processors</u> to keep records of students, teachers and materials.
   Word processors:
   _____

4. They <u>store</u> information about the amount of money held by each client and enable staff to access <u>large</u> databases and to carry out <u>financial</u> transactions at a high speed.
   Store:
   _____

   Large:
   _____

   Financial:
   _____

5. They also control the <u>automatic</u> cash dispenser, which by the use of a personal coded card, dispense money to clients.
   Automatic:
   _____

6. For example, <u>monitors</u> display <u>data</u> about fuel consumption and weather conditions.
   Monitors:
   _____

   Data:
   _____

3.4. Grammar Zone
Sentence Structure: The Subject and the Verbs (in Active Voice)

The English sentence structure contains of at least one subject and one predicate. The subject usually consists of *noun(s) or noun phrase(s).* The predicate can be *verb(s) or auxiliary verb(s).* The place of the subject and verb in a sentence depends on the forms of the sentence. In positive and negative sentences, the subject comes first, before the verb. For example:

1. Basically, <u>a computer</u> <u>consists of</u> input, output, and storage devices.
                              S   V
2. <u>People</u> <u>use</u> computers in many ways.
          S   V
3. <u>That store</u> <u>does not sell</u> computer.
           S   V
4. Nowadays, <u>many people</u> <u>do not use</u> traditional typewriter anymore.
                            S   V

In interrogative sentence, the auxiliary verb comes first. It is followed by the subject and then the Infinitive. For example:

5. <u>Does</u> <u>a computer</u> <u>consist of</u> three main parts?
     Aux   S   V
6. <u>Do</u> <u>people</u> <u>use</u> computers in many ways?
    Aux S   V
7. <u>Does</u> <u>that store</u> <u>sell</u> computers?
    Aux   S   V
8. <u>Do</u> <u>people</u> still <u>use</u> traditional typewriter?
    Aux S   V

Either in positive, negative, or interrogative sentences the form of verb should agree with the subject. Singular subject is followed by infinitive plus s (see sentence a). Plural subject is followed by an infinitive (see sentence b). in negative sentence the subject is followed by auxiliary verb plus infinitive (see sentence c and d). Singular subject is followed by auxiliary verb *does* and plural subject by *do.* Meanwhile, in interrogative

sentence the auxiliary verb should agree with the subject and the verb appears in infinitive (see sentences e,f,g,h).

Exercise: In every number, circle the subject and the predicate (verb) and then decide whether the sentence is Correct (C) or Incorrect (I).

____ 1. Computer is a resource that practitioners, researchers, and managers can rely on to provide timely information about current research developments, trends, best practices, and changes in the profession.

____ 2. Computer technology helps eliminate many of the constraints of time and location for customers in many industries.

____ 3. The benefits of computer technology includes scientific discovery, advanced communications, and the speed of processing information.

____ 4. Computer technology allows for processing of information faster than the human brain can calculate.

____ 5. Without computer technology everything would takes a lot slower to perform and everyday life would be less productive.

____ 6. With the use of computers, people suddenly able to perform an overwhelming amount of computation at stunning speeds.

____ 7. The vast benefits the space program provide the increasing quality of our daily lives, range from improving national security, the economy, productivity and lifestyle.

____ 8. Computerized medical records are the digital counterparts to out-of-date patient medical record in health care offices.

____ 9. Computer engineers in the military aerospace industry contributes to the design of radars, rockets and missiles, and integrate computers with complex systems that involve electronics, lasers, and optics.

____ 10. Computer software is one of the most popular and widely used computer technology; as it runs most of our machines that use computers.

Summary

This chapter sheds light on the importance of computerized technology in several important aspects of human life. Computerized technology has brought a major impact in many human's life. If used appropriately, computer technology brings so many advantages that can make human's life much better. In grammar focus, students are presented with basic sentence patterns enabling them to recognize and construct simple English sentences.

Practice Exercise

Put the verbs in the brackets, into their suitable forms. Pay attention on the subject. Remember, the verb should agree with the subject.

People use computer in many ways. Stores 1) _____(use) computers to keep track of products and 2) _____ (check) you out at the cash register. Banks 3) _____ (use) computers to send money all over the world.

Computers 4) _____ (help) teachers keep track of lessons and grades. They 5)_____ (help) students do research and learn. Computers 6) _____ (let) you hook up networks (many computers hooked together). They 7) _____ (let) you hook up to a worldwide network called the Internet.

Scientists 8) _____ (make) use of computers to solve research problems. Engineers 9) _____ (utilize) computers to make cars, trucks, and airplanes. Architects 10) _____ (take) advantage of computers to design houses and other buildings. The police 11) _____(use) computers to track down criminals. The military 12) _____ (use) computers to make and read coded messages.

CHAPTER 4
PERSONAL COMPUTER

Learning Outcomes:
1. Students are able to identify parts of personal computer
2. Students are able to scan and skim information on personal computer.
3. Students are able to recognize the English verb system of passive voice.

 Content

4.1. Pre-Reading Activity
Study the picture below. Fill in the table using the information in the pictures.

Input Device	Output Device	Storage Device

4.2. Vocabulary Zone

Exercise 1: Match the words and their definitions

Table A	Table B
1. Modem	a. in control the pointer on the screen
2. external memory	b. the brain of the computer
	c. all instructions and data either before or after processing
3. internal memory	d. screen monitor and printer
	e. to give a command or set an option
4. program	f. a set of instructions that describe action for computer
5. computer	g. an automatic electronic medium to store and process data
6. output devices	
	h. a part of system that is used to store data
7. Input devices	i. electronic equipment consisting of device used to connect computers by a telephone line
8. keyboard	
9. mouse	j. part that can be used to enter instructions or data into computer
10. Central Processing Unit	

4.3. Reading Zone

Read the following text. Then, answer the questions after the reading. You can work with a partner.

PERSONAL COMPUTER

5 Personal Computer (PC) is a machine capable of performing calculations and instructions quickly and repetitively. Because it is designed to be used by a single person at a time, a PC is generally smaller, less expensive, and easier to use than supercomputers, mainframe computers, and computer workstations. These kinds of computers usually have more computational power than a PC. The PC, on the other hand, is generally larger than and more powerful than the handheld computers like personal digital assistants (PDAs), **10** and gaming devices.

PCs consists of electronic circuitry that is called a microprocessor, such as the central processing unit (CPU). CPU directs logical and arithmetical functions and executes computer

15 programs. A PC also has electronic memory known as random access memory (RAM) to temporarily store programs and data, as well as external storage devices—such as hard, floppy, compact disc (CD-ROM), and digital video disc (DVD) drives. These storage devices are used to permanently store programs and data. A PC user enters information and commands via a keyboard or a painting device called

20 a mouse. Information from the PC is displayed on a video monitor or on a liquid crystal display (LCD) video screen, or it can be printed on laser, dot-matrix, or inkjet printers. PCs are run by software that is called the operating system.

PCs have revolutionized entertainment, science, the media, art, medicine, education, and business because they provide

25 computational abilities at low cost to people with no extensive programming experience. PCs enable artists to envision and manipulate images. Musicians use them for learning, creating, and recording music. Businesses track finances and forecast company performance using PCs. News reports can compose news stories on

30 portable PCs, called laptops, and electronically submit these stories from remote locations. Many people work at home and communicate with fellow workers via their PCs in a practice known as telecommunication networks to find and send information on any subject.

PCs are now commonly used in everyday life. They can be used to send electronic mail, to write school reports or fiction, to balance checksbooks and keep financial data, or to track news stories and visit Web sites.

Check your comprehension

Part 1: Read the information below and check whether it is true (T) or false (F).

1.	PC has the capability of executing calculations and instructions quickly and repeatedly.	
2.	PC is intended to be used by many people at once.	
3.	Workstations are cheaper than PCs.	
4.	CPU stores programs and data.	

5.	Microprocessor is an example of storage device.	
6.	A mouse is an example of pointing device.	
7.	LCD has the function of presenting information from the PC.	

Part 2: Guessing meaning from the context
Try to match the words with the definition in the box. Read the text again to help you.

1. Performing	a. Shown
2. Repetitively	b. Run a computer file or program in response to a command or instruction
3. Handheld	
4. Executes	c. Operate
5. Permanently	d. Move quickly
6. Displayed	e. More than once
7. Run	f. Held in hand
	g. Never changing or not expected to change
	h. Carry out an action

4.4. Grammar Zone
The English Verb System of Passive Voice

Similar with the case in active voice, the subject and the verb in passive voice should agree to one another. Because in passive voice the verb consists of *to be + past participle*, the *to be* should always agree to the subject. When the subject is singular (see sentences a, b, d) the to be can be *am, is,* or *was* (for past tense). When the subject is plural (see sentences c, f), the *to be* can be *are* or *were* (for past tense). However, when the verb is preceded by a modal, the to be is in its infinitive, i.e. *be* (see sentence e). Study the sentence examples below.

> **In passive voice, the verb consists of "to be + past participle."**

1. Because <u>PC</u> <u>is designed</u> to be used by a single person at a time, a
          S   V

   PC is generally smaller, less expensive, and easier to use than supercomputer.

2. <u>Electronic circuitry inside a PC</u> <u>is called</u> a microprocessor.
                S   V

3. <u>Floppy, compact disc, and digital video disc drives</u> <u>are used</u> to
                      S   V

   permanently store the programs and data.

4. <u>Information from the PC</u> <u>is displayed</u> on a video monitor or on a
              S   V

   liquid crystal display (LCD) video screen.

5. <u>Information from the PC</u> <u>can be printed</u> on laser, dot-matrix, or
              S   V

   inkjet printers.

6. <u>PCs</u> <u>are run</u> by software that is called the operating system.
     S   V

Grammar Exercise
     Complete this text by using the verbs in the brackets into its suitable forms. Be careful, the verbs might be in active or passive voices.

Light Pen

Light pens are electronic pointers that allow users to modify designs on-screen. The hand-held pointer 1) _____ (contain) sensors that send signals to the computer whenever light 2) _____ (record). The computer's screen is not lit up all at once, but it 3) _____ (trace) row-by-row by an electron beam sixty times every second. Because of this, the computer is able to determine the pen's position by noting exactly when the pen 4) _____ (detect) the electron beam passing its tip. Light pens 5) _____ (often used) in computer-aided design and computer-aided manufacture (CAD and CAM) technology because of the flexibility they provide. Here, an engineer 6) _____ (use) a light pen to modify technical drawing on a computer display screen.

Summary

This chapter provides information about Personal Computer (PC) including the definition of PC itself, how it is different from supercomputer, mainframe computer and computer workstation, what PC composed of, as

well as the contribution PC in everyday life activities. This chapter also deals with the English verb system of passive voice as the grammar focus.

Practice Exercise

Complete the text with the correct passive form
HOW CHIPS ARE MADE

Inside computers, the CPU is a microprocessor chip. Most processors (make)……of silicon. This material can be obtained from beach sand and works well because it's semiconductor of electricity.

Manufacturers make large crystals of high-quality silicon and then each crystal (cut) ….. into slices less than a millimeter thick. These slices, called wafers, (treat)……with chemicals, gases and light before they are cut into individual chips.

In the next step, millions of transistors and very small wires (build)…… onto the chip in several layers.

After this, the chip (test)……many times to ensure that all switches and circuits work correctly.

Finally, each chip (insert) …… into a proactive package, which allows the processor to connect to other devices on the motherboard of the computer.

CHAPTER 5
BASIC HARDWARE INSIDE COMPUTER TO KNOW

Learning Outcomes:
1. Students are expected to comprehend the functions of several internal computer hardware.
2. Students are expected to be able to differentiate the internal computer hardware.
3. Students recognize the language patterns to describe functions of an item.

Content

5.1. Pre-Reading Activity
Before reading the passage below, answer these questions:
1. Do you know all PC's internal hardware?
2. Do you know the function each PC's internal hardware?
3. According to you, what is the most important internal hardware?

5.2. Vocabulary Zone
Here are some words taken from the reading passage. Match the words with their synonyms.

1.	Convert	a.	get back
2.	Retrieve	b.	start computer
3.	Generate	c.	backward and forward
4.	Boot	d.	change
5.	Essential	e.	create
6.	Back-and-forth	f.	crucial

5.3.   Reading Zone

Read the passage below. Try to understand the whole content of it, and try to pronounce all the words correctly.

BASIC HARDWARES INSIDE COMPUTER TO KNOW

Computers are made of many electronic components or parts. These components each have a special job and they all work together to make your computer operate. Some components are hidden inside the computer where you can't see them. Others can
5   be seen partly from the outside.

Every computer needs a power supply to take electricity. When your computer is turned on, the power supply allows the converted
10   electricity to travel to other components inside the computer.

The motherboard gets its name because it is like a mother to all of the other circuit boards. It is the largest circuit board and has many smaller boards plugged into it. It holds all of the most important parts of the computer.

On the motherboard, you will find several expansion cards.
15   Each of these cards has a special purpose. The sound card contains special circuits for operating the computer's sound. The video card handles graphics that are displayed on the monitor. There are also

expansion cards for other computer components including the drives and ports.

20 The brain of a computer is the CPU or Central Processing Unit. Like a brain, it controls information and tells other parts what to do (reads and executes program instructions, perform calculations, and makes decisions). This "brain" is responsible for storing and retrieving information on disks and other media. The type of CPU in a computer also determines how fast that computer can operate.

25 A CPU generates lots of heat, so there is usually a small fan nearby to cool it down.

A very important computer component is the BIOS chip. BIOS stands for Basic Input Output System. In very simple terms, the BIOS chip wakes up the computer when you turn it on and reminds it what parts it has and what they do. BIOS is a chip located on all

30 computer motherboards that contains instructions and setup for how the system should boot and how it operates.

Memory components such as Random-Access memory or RAM or hard disk are essential for the computer storages. RAM chips will remember what you tell them and can even change to remember new information. But, when the computer is turned off,

35 RAM forgets everything you told it because RAM is basically used for temporary storage of data. This is why it is so important to save your work on a computer - if the computer gets turned off, RAM will lose all of your work. The larger size of the RAM, the higher performance and faster the computer will work, because the

40 computer can do most of the work on it without copy data back and forth from the hard disk.

ROM stands for Read Only Memory. ROM is good at remembering, but cannot change its mind. It holds information that is built into it. ROM is like reading a library book - lots of information is there, but you can't change it (because you *never*

45 write in a library book). RAM, on the other hand, is more like a journal - you can write information into the journal. But if you change your mind, you can erase and write in new information. Again, the higher the access and rotation speed of the hard disk will improve the overall performance for the computer system.

<u>Check your comprehension</u>

Based on the reading passage above, determine which computer hardware has the function below.

The hardware's function	Name of hardware
allows user to operate software	
stores data or programs on a temporary basis for use in an electronic digital computer	
provides a platform for all the other components and peripherals to talk to each other	
supplies electrical or other types of energy to an output load or group of loads	
stores data or programs on a permanent basis for use in an electronic digital computer	
loads the operating system when a user turn on the computer	

5.4. Grammar Zone
Functions of an Item

We can describe the function of an item in a number of ways. Study these examples:
Using the Present Simple
  i. ROM holds the instructions which are needed to start up the computer.
 	
Used to infinitive, ***Used for + -ing from.***
  ii. ROM is ***used to hold*** instructions which are needed to start up the computer.
	iii. ROM is ***used for holding*** instructions which are needed to start up the computer.
	
	Emphasizing the function
	  iv. The function of ROM is to hold instructions which are needed to start up the computer.

Grammar Exercises
  a. Match each item in Column A with its function in Column B. Then describe its function in two ways.

A Item	B Function
RAM	controls the cursor
processor	inputs data through keys like a typewriter
mouse	displays the output from a computer on a screen
clock	reads DVD-ROMs
flash memory	reads and writes to electronic chips on a card
key	holds instructions which are needed to start up the computer
monitor	holds data read or written to by the processor
keyboard	provide extremely fast access for sections of a program and its
DVD-ROM	data
drive	controls the timing of signals in the computer
cache	controls all the operations in a computer
ROM	

b.   With the help of the Glossary if necessary, describe the functions of these items.

1. Scanner
2. Printer
3. ATM
4. PDA
5. Hard disk drive

6.   Supercomputer
7.   Mainframe computer
8.   Barcodes
9.   Swipe cards
10. Memory

Summary

This chapter discusses the different functions of internal hardware. Knowing the function of several internal hardware can give knowledge about the computer itself to the student as a user. In grammar focus, the students are presented with the discussion of describing functions of an item.

Practice Exercise

Look at the picture below. Answer the following questions by matching each computer part with the description of the function and means in the table!

Flash Memory	Laser Printer	Modem

CD-ROM	CPU

Hardware	Functions	Means
Flash memory	For easy and fast information storage in computers, digital cameras and home video game consoles	Stores data portably and electronically through a grid of columns and rows with a cell.
Laser printer	Prints data and document from the computer	Focuses laser beam to draw an image of the desired page on a photosensitive drum
Modem	Links multiple network to each other	Permits transmission of entirely digital signals
CD-ROM	Stores data and information	Stores data optically
CPU	Functions as the center in the computer for data processing, software instructions, and OS commands	Follows the orders (called commands or instructions) contained inside the program

HARDWARE

1. What does laser printer do?

   _____

2. What is flash memory used for?

   _____

3. How does modem work?

   _____

4. What does CPU do?

   _____

5. How does flash memory work?

   _____

6. What is CD-ROM for?

   _____

7. How does laser printer work?

   _____

8. How does CPU work?

   _____

9. What does modem do?

   _____

10. How does CD-ROM work?

    _____

CHAPTER 6
WORD PROCESSOR

Learning Outcomes:
1. Students are able to comprehend the word processing systems.
2. Students are able to scan and skim information from the text and pictures.
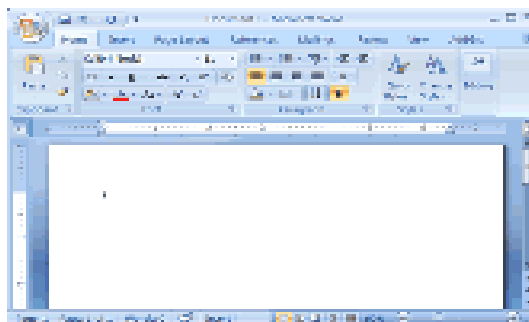3. Students are able to recognize the language patterns of relative pronouns.

 Content

6.1. Pre-Reading Activity
See the pictures below. Can you identify what they are.

6.2. Vocabulary Zone

Here are some vocabulary items from the reading selection. Find them in the text and circle the vocabulary that you are not familiar with.

Printable (Adv.)	incorporate (Verb)	technological (Adj)
Possibly (Adv.)	align (Verb)	advancement (Noun)
Stand-alone (Adj.)	solely (Adv)	simplify (Verb)

6.3. Reading Zone

Read the following selection to find the answer to these questions.

1. What is word processor?
2. What can a word processor do?
3. Find two examples of word processing system.

Word Processor

A word processor is a computer application. It is used for the production of any sort of printable material. The production includes composition, editing, formatting, and possibly printing activities. The
5   application is more formally known as document preparation system.

A word processor may also refer to a stand-alone computer unit which is similar to a typewriter. But, it often includes technological advancements such as a screen, advanced formatting and printing options. It also has the ability to save documents onto memory cards
10   or diskettes.

All word processors offer at least limited facilities for document formatting, such as font changes, page layout, paragraph indentation, and the like. Some word processors can also check spelling, find synonyms, incorporate graphics that is created with another program, correctly align mathematical formulas, create and print form letters,
15   perform calculations, and display documents in multiple on-screen windows.

The term word processor has also been used to refer to computers which were introduced in the 1980s. Word processing computers were able to perform multiple editorial functions, such as editing text, inserting new text, deleting text and performing search

20 and replace functions within the text. . Word processing was one of the earliest applications for the personal computer in office productivity.

Microsoft word is the most widely used computer word processing system. Microsoft estimates over five hundred million people use the Office suite. There are also many other commercial word processing applications, such as WordPerfect.

Check Your Comprehension

Part 1: Read the information below and check whether it is true or false. Read the text again.

1. Using a word processor, a user can only compose, edit and format material.	_____
2. Word processor is the same as document preparation system.	_____
3. Typewriter is an example of word processor.	_____
4. Typewriter is not equipped with a screen and printing option.	_____
5. A word processor allows its user to save documents in a diskette.	_____
6. All word processors can check spelling, find synonyms.	_____
7. Some word processors can check incorporate graphics that is created with another program and correctly align mathematical formulas.	_____
8. Using word processing computer, a user may insert new text into his existing text.	_____
9. Microsoft word is an example of computer word processing system.	_____
10. There is no other word processing application than Microsoft Word.	_____

Part 2: Guessing Meaning from Context

Read the part of the sentence below. Go back to the text again and find them. Read the sentences before and after. Write the meanings of the underlined words in the following sentences on the lines.

1. It is used for the production of any sort of <u>printable</u> material.

Printable: _____

2. A word processor may also refer to a stand-alone computer unit which is <u>similar</u> to a typewriter.
   Similar:_____

3. But, it often includes technological <u>advancements</u> such as a screen, advanced formatting and printing options
   Advancements:_____

4. Word processing computers were able to perform <u>multiple</u> editorial functions, such as editing text, inserting new text, deleting text, and performing search and replace functions within the text.
   Multiple:_____

5. Microsoft word is the most <u>widely used</u> computer word processing system.
   Widely used: _____

6.4. Grammar Zone

Relative Pronoun

Most of the adjectival Clauses are introduced by a relative pronoun such as *which*, or *that*. 'Relative' exactly describes the function of this type of pronoun because it relates (or connects) the adjectival clause to the word(s) that it modifies.

In some languages, the close relationship between a relative clause and the word that it modifies is very clearly shown by the form of the relative pronoun. However, the English relative pronouns do not vary for the masculine, feminine, singular or plural. This makes it difficult sometimes for the reader to decide quickly which part of the sentence the relative clause is modifying. Consequently, to help the reader, the writer must place a relative clause as close as possible to word(s) that is modifying.

Relative pronouns that refer to persons may differ from relative pronouns that refer to things. Thus:

	Persons	Things
	Subject: *who that*	Subject: *which that*
	Object: *who that*	Object : *which that*

	Subject	**Relative clause**	**Predicate**
Persons	The student	who/that failed his exams	is depressed.
	The students	who/that failed his exams	are depressed.
Things	The floppy disk	which/that is on the bench	is clean.
	The floppy disks	which/that are on the bench	are clean

	Subject	**Verb**	**Object**	**Relative clause**
Persons	I	saw	the man	who/that was injure
	I	saw	the men	who/that were injured.
Things	This seed	grows into	a plant	which/that/does not flower.
	These seeds	grow into	plants	which/that do not flower.

In the example sentences the different relative pronouns can be noticed. In relation with singular or plural subjects, the relative pronouns used can be summarized as the following.

	Person	**Things**	**Either in persons or things**
Singular or plural subjects	Who	Which	That
Singular or plural Objects	Who	Which	That

Grammar Exercise

Underline the relative pronoun in these sentences. Then, find the referent of the pronoun. Write down both the pronoun and the referent in the blank spaces.

1. A word processor is a computer application which is used for the production of any sort of printable material.

   _____refers to_____

2. A word processor may also refer to stand-alone computer unit which is similar to a typewriter.

   _____refers to_____

3. All word processors offer at least limited facilities that are needed in preparing word document.

   _____refers to_____

4. The term word processor has also been used to refer to computers which were introduced in the 1980s.

   _____refers to_____

5. There are also many other commercial word processing applications which can be found in the marker.

   _____refers to_____

Summary

This chapter deals with the discussion of word processing system. As it has already been recognized that the most widely used computer word processing system is Microsoft word. Microsoft estimates over five hundred million people use the Office suite. There are also many other commercial word processing applications, such as WordPerfect.

Practice Exercise

Complete the definitions 1-6 using relative pronouns and the extra information in a-f.

1. A barcode is a pattern of printed black lines
2. A CD-ROM drive is a common storage device
3. An anti-virus program is a type of software
4. A hacker is a person
5. A palmtop is a very small computer
6. A software engineer is a person

a.   Supermakets use them for prices
b.   He/she writes software
c.   It reads data from a CD-ROM disk
d.   It can be held in one hand
e.   It protects your computer from viruses
f.   He/she invades a network's privacy

CHAPTER 7
THE WEB AND THE INTERNET

Learning Outcomes:
1. Students are able to identify words related to the web and internet.
2. Students are able to scan and skim information from pictures and texts.
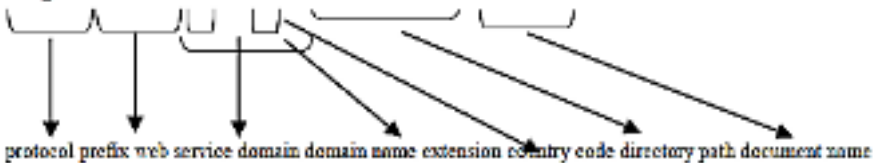3. Students are able to use warnings in technical works.

Content

7.1. Pre-Reading Activity
Study this URL (Uniform Resource Location).

http: www. hw.ac.uk./libWWW/irn/irn.html

protocol prefix web service domain domain name extension country code directory path document name

Which part of the address tells you:
1. the university is in UK?
2. this is the webpage?
3. the type of transmission standard your browser must use to access the data?
4. this points to the computer where the webpage is stored?
5. this is where the webpage is stored in the computer?
6. this is a university?
7. this uses the Web service?

Study these approved domain name extensions and their meanings. Then match these suggestions for new extensions to their meanings.

Extension	Meaning
.aero	Aviation industry
.biz	Business
.com (.co in UK)	Commercial
.edu (.ac in UK)	Cooperatives
.gov	Educational and research
.info	Government
.int	General use
.mil	International organization
.museum	Military agency
.name	Museums
.net	Individuals
.org	Gateway or host
.pro	Non-profit organization
	professionals

Suggested extension	Meaning
1. .firm	a. informative
2. .store	b. cultural or entertainment
3. .web	c. personal
4. .arts	d. firm or agency
5. .rec	e. outline retail shop
6. .info	f. Web-related
7. nom	g. recreational

7.2. Vocabulary Zone

A. Match each of the internet services in Column A with the uses in Column B.

Column A	Column B
1. IRC	a. Logging on to your computer at a distance
2. MOOs	b. Sending and receiving messages
3. Email	c. Downloading a file from a server
4. FTP	d. Chatting to other users in real-time

Column A	Column B
5. WWW	e. Accessing newsgroup
6. Telnet	f. Browsing web pages
7. Usenet	g. Taking part in simulations in a shared environment

B. Here are some vocabulary items from the reading selection. Find them in the text and circle the vocabulary that you are not familiar with.

Convenient (Adj.)	Malfunction (Adj.)
Ensure (V)	Packet (N)
Forward (Adj.)	Path (N)
Header (N)	Router (N)
Intact (Adj.)	Subscriber (N)

7.3. Reading Zone

Internet Access

1   The term *Internet Access* refers to the communication between a residence or business and an ISP that connects to the Internet. Access falls into broad categories: dedicated and dial-up. With dedicated access, a subscriber's computer remains directly connected to the internet at all times through a permanent, physical connection. Dial-up is the least expensive access technology, but it is also the least convenient. To use dial-up access, a subscriber must have a telephone modem, a device connecting a computer to the telephone system and

10 is capable of converting data into sounds and sounds back to data.

      All information is transmitted across the Internet in small units of data called packets. A series of rules known as computer communication protocols specify how packet headers are formed and how packets are processed. The set of protocols used for the Internet is named TCP/IP after the two most important protocols in the set: the Transmission Control Protocol and the Internet Protocol.

      Hardware devices connecting networks in the Internet are called

20 IP routers because they follow the IP protocol when forwarding packets. A router examines the header in each packet arriving to determine the packet's destination. The router either delivers the

packet to the destination computer across a local network or forwards the packet to another router that is closer to the final destination. Thus, a packet travels from router to router as it passes through the Internet.

TCP/IP protocols enable the Internet to automatically detect and correct transmission problems. For example, if any network or device malfunctions, protocols detect the failure and automatically find an alternative path for packets to avoid the malfunction. Protocol software also ensures that data arrives complete and intact.

Part 1. Check your Comprehension. Answer the following questions based on the text above.
1. What are types of Internet access?
2. What do users must have to get dial-up Internet access?
3. How does the information get transmitted through the Internet?
4. What is TCP/IP?
5. What are the job specifications for the router?
6. What is the function of TCP/IP protocol?

Part 2. Guessing Meaning from Context. Try to match the words with the definition in the box. Read the text again to help you.

1. Convenient (Adj.)	a) Whole and undamaged
2. Ensure (V)	b) Pleasant
3. Forward (Adj.)	c) One who arranges routes
4. Header (N)	d) To make sure that something will happen or be available
5. Intact (Adj.)	e) Heading for pages
6. Malfunction (adj.)	f) Name in the mailing list
7. Packet (N)	g) Ahead
8. Path (N)	h) A track or route
9. Router (N)	i) Fail to work normally
10. Subscriber (N)	j) Data unit in computer network

7.4. Grammar Zone

Warnings

Where might you see these warnings?

1. Never give out your home address or phone number.
2. This appliance must be earthed.
3. Avoid turning off main power while computer is running.
4. It is an offence to make unauthorized access to computer material.
5. No smoking, eating or drinking at the computer.
6. A machine which has been exposed to a moist atmosphere should be given time to dry out before being put into use.

Warnings are used to ensure safety to prevent damage to equipment and breaches of security, and to ensure the law is not broken.

The simplest warnings are basic instructions NOT to do something.

Don't do *X*	Avoid *Xing*
No *Xing*	Never do *X*

Sometimes the warning is twinned with matching good practice:

Always do Y; never do X
Do Y rather than doing

Warnings may be made stronger by using *must/must not* and in some cases *should/should not*. For example:

The wire linking a static earthing band to earth must contain a resistor of at least 1megaohm.

If there is any reason to fear the warning may not be understood, a reason for the warning may be added. For example:
Never remove ICs with a screwdriver. The pins are very fragile.

ENGLISH FOR INFORMATICS ENGINEERING 1

Summary

This chapter discusses some terms related to internet access such as IRC, MOOs, Email, FTP, WWW, Telnet, Usenet and many more. This chapter also presents the expressions of *warnings*. Warnings are used to ensure safety to prevent damage to equipment and breaches of security, and to ensure the law is not broken.

Practice Exercise

Rewrite each of these warnings according to the prompt. Add a reason to the warning where you think it appropriate.

1.

Don't give open access to PCs

Avoid….

2.

You must not use your own programs on these machines.

Never……

3.

No Coffee in this lab

….must not…..

4.

> Avoid giving financial information in a chat room

Don't ….

5.

> Never give out your password

Always …

6.

> Don't use out of date anti-virus software

Use…

7.

> Never use a computer that has been standing for a long time in a cold environment without waiting until it has reached normal room temperature.

Always ……

8.

> Cards must not be removed from their anti-static packing until required

Never …..

9.

> Use an IC extraction tool; don't use a screwdriver

…..rather than…..

10.

> Always ensure the power is switched off when working on a computer.

….must not….

CHAPTER 8
NETWORKS

Learning Outcomes:
1. Students are able to identify words related to networks.
2. Students are able scan and skim information from pictures and texts.
3. Students are able to use technical description using Relative Clauses with a Participle.

Content

8.1. Pre-Reading Activity

A. Try to describe their function of these components of a typical network system:

1. a file server
2. a bridge
3. a router
4. a backbone
5. a LAN
6. a gateway
7. a modem

B. Now read these definitions to check your answers. You may also refer to the Glossary.

A bridge is a hardware and software combination used to connect the same type of networks. Bridges can also partition a large network into two smaller ones and connect two LANs that are nearby each other.
A router is a special computer that directs communicating messages when several networks are connected together. High-speed routers can serve as part of the Internet backbone.
A gateway is an interface that enables dissimilar networks to communicate, such

as two LANs based on different topologies or network operating systems.
A modem is a device for converting digital signals to analogue signals and vice versa to enable computer to transmit and receive data using an ordinary telephone line.
A LAN is a network contained within a small area, for example a company department.
A backbone is the main transmission path, handling the major data traffic, connecting different LANs together.

8.2.   Reading Zone

Look at the picture. Discuss the picture with your friends. Read the reading passage on the next page aloud.

Wireless Networking

1   Wireless (WiFi) networks are just like fixed LANs but instead of using cables, devices are linked by radio waves.

Each computer in a wireless network requires a wireless network interface card (NIC). These can be built in or you can use
5   plug-in adaptors. These allow each component in the network to communicate with a wireless access point (AP) to create a wireless local area network (WLAN). The AP operates like a router in a fixed LAN. It also provides a bridge which plugs into the hub of a fixed LAN allowing both fixed and wireless users to talk to each
10   other. If your LAN is connected to the Internet, the WLAN can also use it. If not, you can connect the WLAN to the Internet via an ADSL or cable modem.

What are the advantages of a wireless network? You don't need cabling. In older buildings, it can be expensive to install
15   cables and access points. With WiFi, one access point can cover an entire floor or even a building. You can work anywhere within the range of the access point. On a sunny day, you could work outside. You can make any room in the house your study. There are now WiFi hotspots in hotels, libraries and airports so you can link to a
20   network away from home or your office.

There are disadvantages. Fixed LANs can run 1000 Mbps. Wireless networks are much slower the rate. Although there are savings on the cost of cabling, wireless NICs are more expensive than wired versions. Then there is the problem of interference, if a
25   neighbor using the same channel, and security. Other users may be able to intercept your data. Encryption programs like Wired Equivalent Privacy (WEP) can help.

8.3.   Grammar Zone

Relative Clauses with a Participle

Relative clauses with a participle are often used in technical descriptions. They allow you to provide a lot of information about a noun using few words as possible.
Study these examples.
  1.   Computers *equipped with wireless NICs*;

---

2. A network printer *connected to a wireless print server*
3. A modem *providing access to the internet*
4. A fixed LAN *linking computers with cable*

We can use the passive participle as in example 1 and 2
1. Computers equipped with wireless NICs computer *which are equipped*
2. A network printer connected to *a wireless print server*
   a network printer *which is connected*

We can use an active participles as in examples 3 and 4.
1. A modem providing access to the Internet
   modem which provides access to the internet
2. A fixed LAN linking computers with cables.
   a fixed LAN which link computers with cables

Practice Exercise

A. **Complete these definitions with the correct participle of the verb given in brackets.**

1. *A gateway* is an interface (enable) dissimilar networks to communicate.
2. *A bridge* is a hardware and software combination (use) to connect the same type of networks.
3. *A backbone* is a network transmission path (handle) major data traffic.
4. *A router* is a special computer (direct) messages when several networks are linked.
5. *A network* is a number of computers and peripherals (link) together.
6. *A LAN* is a network (connect) computers over a small distance such as within company.
7. *A server* is a powerful computer (store) many programs (share) by all the clients in the network.
8. *A client* is a network computer (use) for accessing a service on a server.

9. *A thin* client is a simple computer (comprise) a processor and memory, display, keyboard, mouse and hard drive only.
10. *A hub* is an electronic device (connect) all the data cabling in network.

B.   Link these statements using a relative clause with a participle.
1. a. The technology is here today.
    b. It is needed to set up a home network.
2. a. You only need one network printer.
    b. It is connected to the server.
3. a. Her house has a network.
    b. It allows basic file-sharing and multi-player gaming.
4. a. There is a line receiver in the living room.
    b. It delivers home entertainment audio to speakers.
5. a. Eve has designed a site.
    b. It is dedicated to dance.
6. a. She has built in links.
    b. They connect her site to other dance sites.
7. a. She designed the site using a website creation program.
    b. It is called dreamweaver.
8. a. At the center of the home of tomorrow is a network.
    b. It is accessed through a control pad.

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GLOSSARY

- Address
- Application
- Computer
- Domain name
- Downloading
- E-mail
- Expressions
- Functions of Item
- Hardware
- Hobby
- Home page
- Input Device
- Instructions
- Internet
- Internet Access
- ISP (Internet service provider)
- ISP address
- Name
- Networks
- Occupation

- Output Device
- Participle
- Passive Voice
- Personal Computer
- Personal Computer
- Place of Origin
- Relative Clause
- Relative Pronoun
- Search engine
- Sentence Structure
- Subject
- Subscribe
- Verb
- VoIP
- Web address
- Web browser
- Web page
- Website
- WI-FI
- Wireless Networking
- Word Processor

ABOUT THE AUTHOR

Siti Kustini adalah staf pengajar di Jurusan Teknik Elektro Program Studi Teknik Informatika yang bertugas mengampu mata kuliah Bahasa Inggris. Penulis mendapatkan gelar sarjana pendidikan Bahasa Inggris dari Universitas Lambung Mangkurat dan gelar magister pendidikan Bahasa Inggris dari Universitas Pendidikan Indonesia. Saat ini penulis sedang dalam tahap penyelesaian studi doktor di bidang pendidikan Bahasa Inggris pada Universitas Pendidikan Indonesia di Bandung. Penulis secara aktif berpartisipasi sebagai pembicara pada beberapa konferensi, seminar, dan workshop baik skala internasional maupun nasional. Penulis telah menerbitkan beberapa artikel pada jurnal ilmiah dan prosiding. Bidang penelitian yang ditekuni oleh penulis antara lain adalah pengembangan bahan ajar, teknologi dalam pengajaran, pengembangan literasi dan pembentukan karakter.

English for Informatics Engineering 1

Siti Kustini

English for ICT Engineering is a course book designed for false beginner students taking ESP course in the Information and Technology Engineering Study Program. This book offers easy-to-follow learning materials in which the activities are arranged in such a way to assist students develop their English language competence and creativity and innovative skills in using this language. This book contains seven units of lessons covering a wide range of current ICT topics, using authentic texts and visual materials taken from textbooks, internet newsgroup, webpages, manuals, and advertisement.