HARDWARE AND NETWORKING SERVICE

LEVEL – I

Based on March 2022, Curriculum Version 1



Module Title: Develop Computer Keyboard Skill

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Acronym

OHS occupation health Safety

TTLM teaching Training learning material

KDR Keyboard Data Recorder

Introduction to the Module

In Hard Ware and network Servicing filed; knowing and identifying the hard ware Components is the primary activity to categorize the input devices, output devices and secondary storage devices with their perspective ports and connectors.

This module is designed to meet the industry requirement under the Hard ware and Network Servicing occupational standard, particularly for the unit of competency: **Develop Computer Keyboard Skill**

This module covers the units :

- Use safe work practices
- Identifying and developing keyboard skills
- Checking accuracy

Learning Objective of the Module

- Use safe work practices
- Identify keyboard skill
- Check accuracy

Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

1. Read the information written in each unit
2. Accomplish the Self-checks at the end of each unit
3. Perform Operation Sheets which were provided at the end of units
4. Do the “LAP test” giver at the end of each unit and

Read the identified reference book for Examples and exercise

Unit one: Use safe work practices

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

Using safe work practices

- use safe work practices
- identifying and developing keyboard skills
- checking accuracy

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Use safe work practices
- Identify and Develop keyboard skill
- Check accuracy

1.1.adjusting workspace furniture and equipments

Most organizations use computers to keep records, prepare documents and Generally manage their business. If you know how to use a keyboard efficiently and correctly you will be of greater value to any organization for which you work.

It will also reduce your risk of injury by making you aware of the importance of good posture, appropriate equipment and work environment and good work practices.

Topics in this section will help you fulfill this role as safely as possible, and they include how to set up and use your workstation safely, how to manage your time and your tasks so that you work safely, and how to exercise regularly so that you reduce the risk of injury.

1.1.1 Ergonomic Requirement

What is Ergonomics

Ergonomics is the scientific study of human performance at work. It is the science of arranging or adjusting the work environment to fit the employee's body or making your equipment work for you and not you working for it.

Why is it important?

Application of ergonomics principles to work practices allows prevention and control musculoskeletal injuries arising from repetitive or forceful movement or/and or constrained postures.



Fig 1.1.1 musculoskeletal injuries

Ergonomic requirement. may include but not limited to:

- avoiding radiation from computer screens
- chair height, seat and back adjustment
- document holder
- footrest
- keyboard and mouse position
- lighting
- noise minimization
- posture
- screen position
- workstation height and layout

1.2 OHS Requirements for computer operation

OHS requirement may include but not limited to:

- OHS guidelines related to the use of the screen equipment, computing equipment and peripherals, ergonomic work stations, security procedures, customization requirements
- Statutory requirements

Working with computers can cause workers a number of problems. These include stress, visual discomfort, as well as aches and pains in the hands, wrists, arms or shoulders. The following are general guidelines to follow when organizing work station to suit OHS requirements.

1.2.1 Are OHS Supervisors Responsibilities

- Implementing and maintaining ergonomic principles
- Ensuring that people in your area are properly trained in ergonomic principles
- Ensuring that people in your area follow safe ergonomic practices
- Actively practicing and developing positive attitudes towards ergonomic issues

Considering workplace layout ergonomics and individual needs when allocation tasks to people in your area

Ergonomics (or human factors) is the scientific discipline concerned with the understanding of the interactions among humans and other elements of a system, and the profession that applies theoretical principles, data and methods to design in order to optimize human well being and overall system performance.

Practitioners of ergonomics, contribute to the planning, design and evaluation of task, jobs, products, organization, environments and system in order to make them compatible with the need, ability and limitation of people. Some ergonomic requirement are

- ✓ Workstation height and layout
- ✓ Chair height, seat and back adjustment
- ✓ Footrest
- ✓ Screen position
- ✓ Keyboard and mouse position
- ✓ Document holder
- ✓ Posture
- ✓ Anti-glare screen
- ✓ Lighting
- ✓ Noise minimization

1.2.2 Workstation height and layout

The area where you work is called a workstation. It includes your computer, keyboard, desk and chair. You need to know how to set up and maintain a safe workstation. It is very important that when you use a computer you are able to work in a posture which is comfortable and which does not place long term health at risk

Chair height, seat and back adjustment

- A char is the workstation item that contribute most to your contort and health. A well-designed office char can be adjusted to suit you and the height so that your upper and lower legs form a 90-degree angle and your lower back is supported by the back of the chair , in addition, the following things should be considered on chair adjustment:
  - Adjust height range suited to the desk
  - A stable, independently adjustable backrest
  - Freely moveable
  - If the chair height is correctly set but the desk is too high rase the height of the chair and use a footrest to compensate.
  - Armrest are not recommended as they are likely to interfere with the ability to move the chair closed enough to the des see the photograph below











Fig 1.3.1 Chair height

Keyboard and mouse position

Keyboarding should be centered to your body opposite the J key and lean forward slightly. Keep your forearms horizontal to the keyboard. you don't need to twist to use it.

- at the front edge of the desk so that you can reach the keys easily
- To minimize fatigue place the mouse on the mouse pad to restrict the area of movement for the hand and arm. Check that the mouse is comfortable in size and shape and suits your hand.
- The mouse pad should be placed as close as possible to the keyboard to avoid over-reaching with impact on shoulder/neck muscles

1. Document holder

If you regularly need to enter data from another document, think about using a document holder. Prolonged reading from a document that is resting on the surface of the desk can cause neck and shoulder strains. Document holders hold papers so that this risk is reduced. As illustrated, there are several different designs. Your choice would depend on the space available to you and the size and kind of documents to be held.

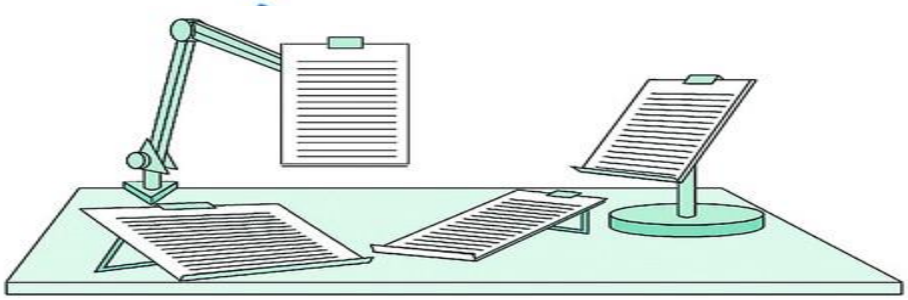


Figure 1.3.3.1 document holder

2. Posture

- The feet are supported on the floor, or a footrest (if knees are at greater that 900)
- No pressure caused by the front edge of the chair
- The upper body is upright with the lower back firmly supported by the backrest
- The shoulders are relaxed and not hunched/bent
- The elbows and upper arm are close to the body
- The head is upright or slightly inclined forward with minimum of strain/damage on the Height adjustable desks are the preferred option.
- No sharp edges, protrusions or rough surfaces
- It is recommended that work surface be continuous due to increase mouse
- usage, keyboard and mouse are on the same level

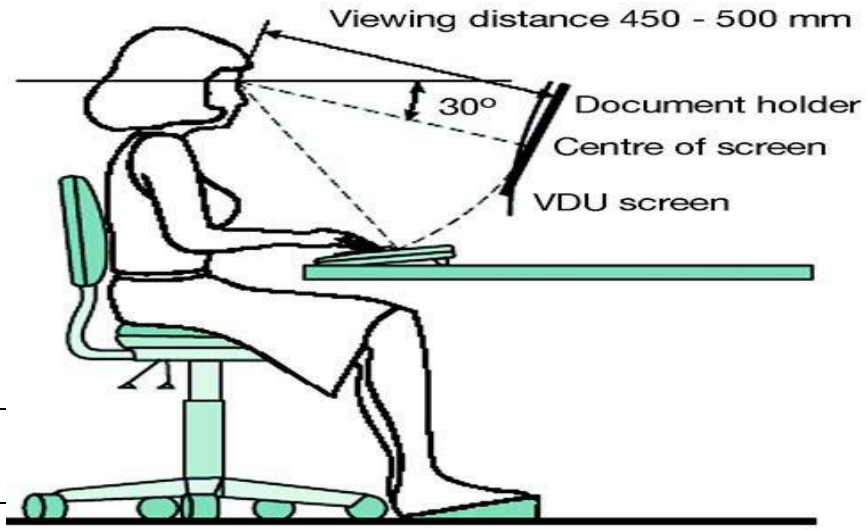


Figure 1.3.3.2 posture

3. Lighting

- ✓ Overhead lighting should be fitted with glare reducing diffusers and light should fall from the side rather than from the front to avoid reflection. Windows should be on the side of the user if possible, not directly behind or in front of the screen. Monitor should not facing to the window.
- ✓ It is important that the area you work in has good lighting. In general, lighting is good when you can view your work and your environment easily without the need to strain your eyes. Your lighting needs will vary - you will need better lighting for proofreading a document than for using the computer. Glare and reflections can cause headaches and fatigue when working at a computer.
- ✓ You may need to reposition your desk, change the angle of your screen or block the offending light.

1.3 Occupational health and safety

Employers and employees are legally required to look after the health and safety of workers. This applies to all organizations, including volunteer organizations. Employers must provide a safe working environment. In addition, employees also must not put themselves or others at risk. All the topics listed in 1.1 enable every body to have safe work practice and to be guidelines for

occupational health and safe at workplace. In addition, the following subtopics are also included in the occupational health and safety procedures.

1.3.1 Safe work organization

How you organize yourself and your work also directly affects your health and safely at work. Learning basic typing skills is one of the best things that you can do for yourself. Not only will you work more quickly, you will put less strain on

A. Task Variety

You should vary your activities throughout the day. Try to mix typing and other computer work with tasks such as collecting the documents at the printer, reviewing, photocopying and distributing documents. Look for opportunities to stand or walk around as a break from sitting at the computer. You should also try to include tasks with different mental, as well as physical, demands.

B. **Breaks**

Make sure that you take regular breaks from your work. Frequent short pauses are preferable to infrequent long pauses. Answering the phone or collecting a document from the printer makes a good short break. Defined breaks such as lunch or morning tea are also necessary. Avoid taking these ‘breaks’ at your desk so that you don’t keep working. The length and frequency of breaks that you need will depend on the work, on you and on other factors.

Exercises

Regular exercise can reduce the effect of repetitive work such as typing. However, you should still take the other safe-work precautions already mentioned.

Self check-1

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Instruction 1:- choose the best answer for the given alternatives **(5 points)**

_____1. ___ is the study of efficiency, comfort and safety of people in their working environment.

a. Ergonomics b. safety c. working d. all

_____2. From the following which one is not included in ergonomics for text processing operators?

a. Keyboard b. mouse c. monitor d. all e. none of the above

_____3. __ is one of the most important factors in preventing posture problems.

a. adjustable chair b. desk arrangement c. decor and Lighting d. all

_____4. ____ is a short break in work for muscle relaxation

a. noise b. break c. a micro pause d. all e. none

_____5. From the following which one is a noise factor in an office?

a. People and equipment b. printers, photocopiers c. phones d. all e. none

Instruction 2 Matching (4 points)

"A"	**"B"**
_____1. Used to ensure proper posture	A. Mouse
_____2.Makes it possible to view documents	B. keyboard
_____3.The ability to organize and prioritize work	C. adjustable chair

_____4.Positioned at the right or left of the keyboard

D. foot-rest
E. Copy –holder
F. an essential skill

Instruction 3 Give short answer

1. What is the principal object of Occupational Health and Safety (OHS)**(1 point)**

_____.

2. Write the steps to prevent eyestrain**(4 points)**

Operation sheet 1

Operation title :- Develop Computer Keyboard Skill

Purpose : the purpose of the operation sheet is to show all necessary conditions and steps in typing on keyboarding.

Techniques to Start computer, system information and features

Step 1: adjust work space

Step 2: ensure OHS requirements are met

Use the following check list also

Do you sit in the correct Posture while working on Computers?

1. Yes
2. No

Is your desk and chair ergonomic, and if not, have you adjusted them?

1. Yes
2. No

Are your Computer Table, Mouse, Keyboard placed in correct position?

1. Yes
2. No

Is your computer/Laptop correctly placed on your desk?

1. Yes
2. No

Have you arranged your tools on your desk to prevent twisting and reaching?

1. Yes
2. No

Lap Test-1

LAP Test	**Practical Demonstration**

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary information, tools, equipment and materials you are required to

perform the following tasks within 1 hour.

Task 1: adjust the given furniture and equipment based on ergonomic requirements

Task 2: apply OHS requirements for the computer operation

Unit Two: Identify and develop keyboard skills

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Identify and apply keyboard functions for both alpha and numeric keyboard functions
- Identify and apply Amharic and English keyboard functions/skills
- Apply touch typing technique to complete a task .
- Develop speed and accuracy

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Obtain appropriate peripherals devices
- Enter peripherals into equipment inventory
- Validate delivered physical components
- Store peripherals

2.1 Identifying Keyboard functions

Keyboarding is an input device that enables you to enter information to the computer and its layout is viewed hereunder.

Some basic keyboarding skills that you are expected to know are:

- ✓ Word process, spreadsheets and or data entry
- ✓ Speed and accuracy

TYPES OF KEYS: Though there are several input devices viz. mouse, touch screen, character/ voice recognition etc. used for giving input to the computer, yet the use of keyboard is the most common method adopted for input of data into a computer. Commonly, a computer has a keyboard that looks like a typewriter keyboard. However, a computer keyboard contains additionally certain keys which are also used to give commands to the operating system of a computer. A computer keyboard contains the following types of keys:

Some Keyboarding functions/features are listed as follows:

- ✓ **Function keys (F1 to F12)** are special keys that are programmed to do specific things. For example, if you tap the F1 key, the Help menu will appear.
- ✓ **Cursor control keys.** Use the cursor control keys on the keyboard to move your cursor (mouse pointer) around a document.
    - Use the four arrow keys to move one space or one line.
    - Use the Page Up and Page Down keys to move one screen (rather than a page) up or down.

- ✓ **CTRL and ALT keys.** The Control and Alternate keys are always used in combination with other keys. Holding down one or both of the keys, while tapping another key, can provide **keyboard shortcuts** – quick ways of doing things using the keyboard.

    For example: Ctrl+N brings up a new document.

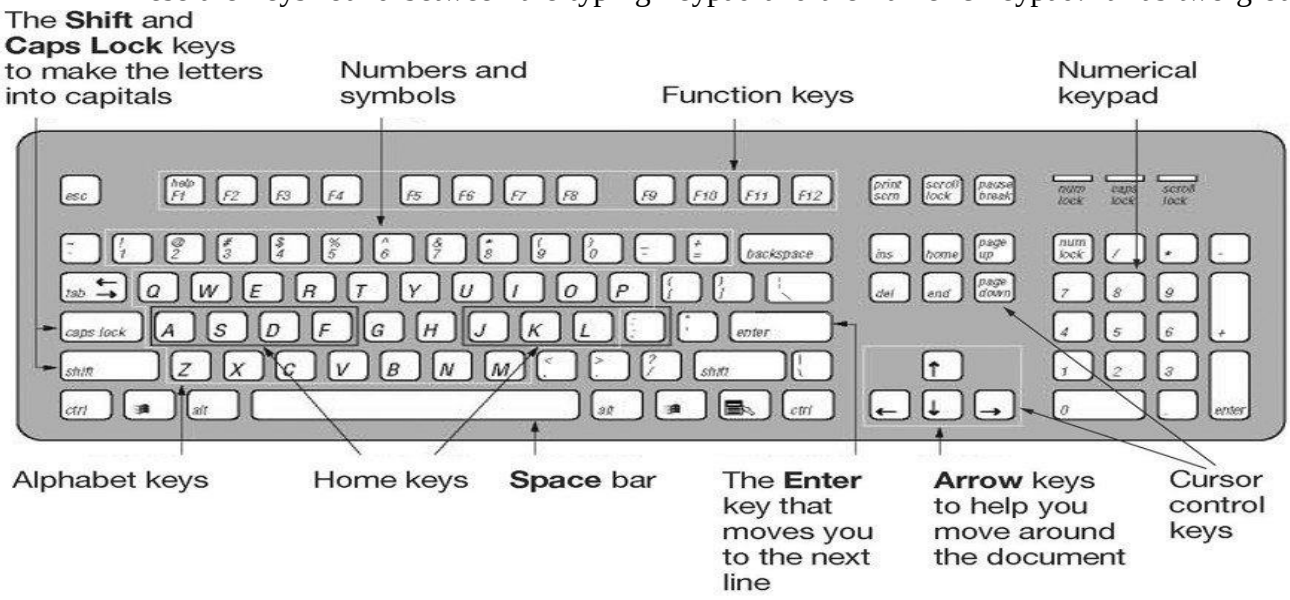
- ✓ **Alphanumeric keypad.** Use the alphabet keys to type words. Although the tops of the keys show the letters as capitals they will appear as lower case letters unless you use the shift or caps lock keys. The home keys are the alphabet keys that your fingers will use as a 'base'. Each finger rests on its home key when not typing. Learn to use Numerical key properly (touch-type) if you regularly enter numbers. It's quicker, and easier on your wrists, than using the numbers above the letter keys.
- ✓ **Space bar.** Tap this to put a space between words.
- ✓ **Shift Keys.** To capitalize letters you can use **shift keys** (left or right) for **a single letter**. For example to capitalize letter **F** you should press **right shift** key with your **right small finger** and press **F** with your **left index finger** at the same time.

- ✓ **Caps Lock key.** To capitalize a word or phrases at a time you can use **shift lock/cap lock**. To do this, depress the shift lock key or cap lock key and leave it down until you have typed the combination to be capitalized.
- ✓ keyboard shortcuts
- ✓ **Punctuation keys**: The keys used for inserting various punctuation marks are period (full stop), comma, semicolon, brackets, apostrophe, parenthesis etc. Also, it includes all of the mathematical operators such as the plus sign, minus sign, and equal sign.
- ✓ **Special keys**: Understanding the keyboard also means learning the special functions of certain keys. Commonly used special keys are explained as under:
    - **Ctrl Key**: The full form of Ctrl is Control. This key is used in combination with other keys. For example, Ctrl+S to save a document
    - **Alt Keys**: The full form of Alt is Alternate. It is used like a control key. You depress Ctrl+Alt+Del simultaneously when you want to get out of computer as the application on which you are working is held up or muddled up
    - **Arrow Keys**: There are normally four arrow keys to move the cursor - up, down, right or left. The Arrow Keys can also be used in conjunction with the Shift or Alt keys
- ✓ **Enter Key**: Also called Return Key. It is used to move the cursor to the beginning of the next line and give line spaces.
- ✓ **Backspace Key**: This key deletes the character just left to the cursor position and hence moves the cursor to that position.
- ✓ **Delete (Del) Key**: This key deletes the character to the right at the current cursor position or the selected objects.
- ✓ **Caps Lock:** It is a toggle key that helps in typing many uppercase characters
- ✓ **Esc Key**: It means Escape which is used to exit (or escape) from programs and tasks and send special codes to different devices.

Fig keyboard function

2.1.1 Cursor and monitor controls

These are keys found between the typing keypad and the numeric keypad. It has two groups of



ckly

Undo an action.	**CTRL+Z**
Redo or repeat an action	**CTRL+Y**
Print	**CTRL+P**
Copy	**CTRL+C**

Cut	**CTRL+X**
Paste	**CTRL+V**
Open new document	**CTRL+N**
Indentation	**CTRL+M**
Close opened windows	**Alt+F4**
Make the text bold style	**CTRL+B**
Make the text italic style	**CTRL+I**
Underline text	**CTRL+U**

2.2 Basic touch typing techniques

Learn how to type accurately and increase your speed

Touch Typing Course or **Mavis Beacon** is a professional typing tutor that helps you "how to type" in order to increase your typing speed and accuracy. It takes very little time to learn to type, allowing you to develop a skill that will help you for a lifetime! Save yourself hours of time and learn to touch type. This course has also touch typing tests with goals to set and achieve.

Keyboarding functions should be easily identified in order to develop speed and accuracy in accordance to the workplace requirements for the level of responsibilities. In order to perform required tasks at required speed and accuracy touch typing technique should be applied.

Touch typing technique/skill can be developed by memorizing the keyboarding functions and the keys and their corresponding fingers.

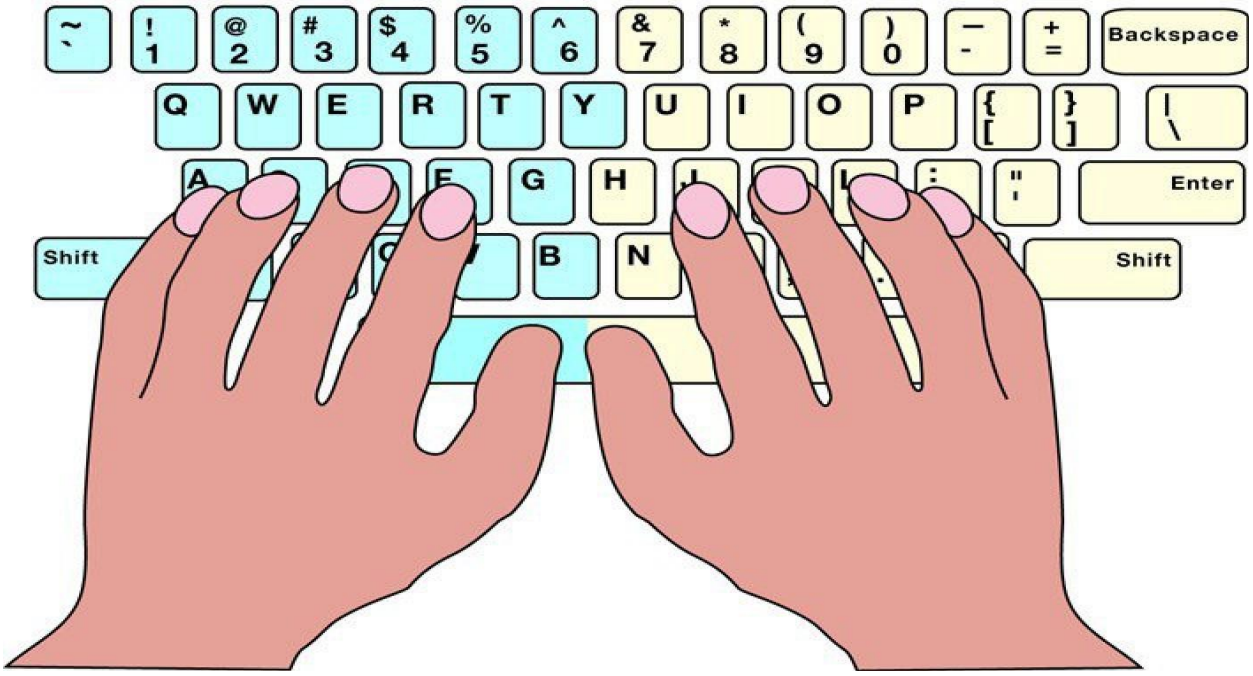


Fig 2.2.1.1 Touch typing technique

Home keys their corresponding fingers

A	left small/little finger
S	left ring finger
D	left middle finger
F	left index/pointer or forefinger
J	right index/pointer or forefinger
K	right middle finger
L	right ring finger
;	right small/little finger

Groups or family letters of the home keys are the diagonal letters or letters nearer to the home keys such as **A families are Q, Z, 1**

Hence, memorization of home keys and their corresponding fingers enables you develop high speed and greater accuracy in your performance at work.

Hence, in order to develop keyboarding skills, application software is required to install in the computer which is **Mavis Beacon.**

2.2.1 What is Mavis?

Mavis is application software that enables you to develop **keyboarding skills**.

When you acquired the basic keyboarding skills using this software, you can Type Better - Email Faster - Work Smarter! Mavis Beacon Teaches Typing has many features that help young typists stay motivated!

Mavis Beacon Teach Typing is a typing training program that offers great benefits for any user, from students just starting out, to professionals looking to squeeze a few more emails into the work day.

With an all-new user interface and re-designed features and functionalities, Mavis Beacon Teaches Typing may not look familiar, but it still provides guaranteed improvements in only 2 weeks!

1. Practice Area

Mavis Beacon lets you choose what you use to practice your typing. Select from hundreds of articles and passages covering a wide variety of topics and subjects including literary classics, history, autobiographies and poetry.

2. Typing Games

There are some typing games designed to improve your speed, accuracy.

Progress Tracking & Reporting

Mavis Beacon tracks your performance over time and provides a series of reports so that you can understand and review your progress.

Steps to use Mavis Beacon

- Point to start button

- choose all programs
- explore Mavis Beacon from the list of all programs
- Click Mavis Beacon or if the icon is on the desktop double click it
- If you are a new user click on the new button
- enter your name
- select English, standard and then adjust your typing goals in words per minute
- then click ok
- then click ok again
- Click takes a lesson
- click first beginner lesson, if you are a beginner
- Click start

Then type the keys using the appropriate finger as you are instructed by the program.



Fig2.2.1 mavis teaches typing

2.2.2 The Amharic keyboard layout

This keyboard layout is specifically designed for those users not familiar with conventional Amharic Typewriter layout. Follow these steps to activate phonetic keyboard layout,

- Click on Power Ge’ez icon located at Windows taskbar
- The icon will change from
- Click on ኢ again go to into phonetic UNICODE mode (ፎ) User must select power Ge’ez UNICODE Font to do word processor



Figure 1 - Power Ge’ez 2010™ Phonetic

When Power Ge’ez is in Normal Phonetic Mode (ኢ) users must select power Ge'ez1 Unicode 1, power Ge'ez2 Unicode 2 or power Ge'ez3 Unicode 3 fonts. When Power Ge’ez is in Phonetic UNICODE Mode (ፎ) users must use Power Geez UNICODE 1, Power Geez UNICODE 2, or Power Geez UNICODE 3 fonts

		u	i	A	y	e	O
H	ሀ	ሁ	ሂ	ሃ	ሄ	ህ	ሆ
L	ለ	ሉ	ሊ	ላ	ሌ	ል	ሎ
H	ሐ	ሑ	ሒ	ሓ	ሔ	ሕ	ሖ
M	መ	ሙ	ሚ	ማ	ሜ	ም	ሞ
S	ሠ	ሡ	ሢ	ሣ	ሤ	ሥ	ሦ
R	ረ	ሩ	ሪ	ራ	ሬ	ር	ሮ
S	ሰ	ሱ	ሲ	ሳ	ሴ	ስ	ሶ
Q	ቀ	ቁ	ቂ	ቃ	ቄ	ቅ	ቆ
B	በ	ቡ	ቢ	ባ	ቤ	ብ	ቦ
T	ተ	ቱ	ቲ	ታ	ቴ	ት	ቶ
C	ቸ	ቹ	ቺ	ቻ	ቼ	ች	ቾ
N	ነ	ኑ	ኒ	ና	ኔ	ን	ኖ
N	ኘ	ኙ	ኚ	ኛ	ኜ	ኝ	ኞ
X	አ	ኡ	ኢ	ኣ	ኤ	እ	ኦ
K	ከ	ኩ	ኪ	ካ	ኬ	ክ	ኮ
W	ዉ	ዌ	ዊ	ዋ	ዳ	ው	ዎ
X	ወ	ዉ	ዊ	ዋ	ዌ	ኽ	ዖ
Z	ዘ	ዙ	ዚ	ዛ	ዜ	ዝ	ዞ
Z	ዠ	ዥ	ዢ	ዣ	ዤ	ዥ	ዦ
Y	የ	ዩ	ዪ	ያ	ዬ	ይ	ዮ
D	ደ	ዱ	ዲ	ዳ	ዴ	ድ	ዶ
J	ጀ	ጁ	ጂ	ጃ	ጄ	ጅ	ጆ
G	ገ	ጉ	ጊ	ጋ	ጌ	ግ	ጎ
T	ጠ	ጡ	ጢ	ጣ	ጤ	ጥ	ጦ
C	ፈ	ፉ	ፊ	ፋ	ፌ	ፍ	ፎ

Phonetic Regular Keystrokes

		u	i	a	y	e	O
P	ቻ	ችኡ	ችኢ	ችኣ	ችኤ	ችእ	ችዐ

F	□	ኘ	ኚ	ኛ	ኞ	አ	ኧ
P	ዩ	□	□	□	ከ	□	□
V	ቨ	ቩ	ቪ	ቫ	ቬ	ቭ	ቮ
Q[1]	ቐ	ቑ	ቒ	ቓ	ቔ	ቕ	ቖ

Continued - Phonetic Regular Keystrokes

The ቐ character is available on Ge'ez-1 Number for non-UNICODE mode.

		u	I	a	Y	e	o
H	□	□	□	ኻ	□	ኻ	ሯ
H	ሐ	ሑ	ሒ	ዘ	ሓ	□	ኽ
S	ሸ	ሹ	ሺ	ሻ	ሼ	ሽ	ሾ
T	□	□	□	□	□	□	ሯ
T	ና	ኑ	ኒ	ነ	ኔ	ን	ኖ

Phonetic with the CAP LOCK key ON

lwa	ሏ	**Nwa**	ኗ	**bwa**	ቧ	**Cwa**	ቿ
mwa	ሟ	Zwa	ዟ	twa	ⵜⵡ	tswa	ⵜⵙⵡ
rwa	ሯ	Zwa	ⵣⵡ	cwa	ⵛⵡ	fwa	ⵜⵡ
swa	ⵙⵡ	Dwa	ⵦⵡ	nwa	ⵏⵡ	vwa	ⵡⵡ
shwa	ⵛⵡ	Jwa	ⵊⵡ	Twa	ⵜⵡ	sft+2	ⵜⵡ

Irregular Keystrokes I with CAPS key ON

	o	**i**	**u**	**a**	**E**
Kw	ኰ	ኵ	ኵ	ኳ	ኴ
Gw	ጐ	ጕ	ጕ	ⵖⵡ	ⵖⵡⵄ
Qw	ቈ	ቍ	ቍ	ቋ	ⵇⵡ
Hw	ⵀⵡ	ⵀⵡ	ⵀⵡ	ⵀⵡ	ⵀⵡ

Phonetic Irregular Keystrokes II with Caps Key ON

Note: When Power Ge'ez is in non-UNICODE mode, the .available on ***Ge'ez-1 Numbers*** font. When Power Ge'ez is in UNICODE mode the above two characters will be available on all UNICODE fonts.

Key Pressed	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Key Produced	0	1	2	3	4	5	6	7	8	9

Fig 2.2.2.6 Keys pressed with the CAPS LOCK key on

Key Pressed	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Key Produced	*	)	!	V	#	$	%	&	W	(

Fig 2.2.2.7 Ge'ez Numbers

Amharic Typewriter Keyboard Layout

This keyboard layout is useful for users who are already familiar with the conventional Amharic typewriter machines. Follow these steps to activate Amharic Typewriter keyboard layout,

- Click on Power Ge'ez 2010™ icon located at Windows taskbar until the image changes as shown below.



Power Ge'ez Typewriter

- Click on icon again to go into Typewriter UNICODE mode. When Power Ge'ez is in TU mode users must select Power Ge'ez UNICODE font on the word processor.



2.2.2.9 Typewriter Unicode

2.3 Developing speed and accuracy

Checking Accuracy of Your Work

When you have completed typing a document, you need to check to make sure that it is free from errors. Most organizations have a policy that says all documents should be free from spelling and punctuation errors. Errors can have practical consequences – they can cause misunderstandings, offend people or, in the case of an incorrect address, result in mail not being received. As well, when errors are left in a document, the organization looks unprofessional.

2.3.1 Checking the content

If you are the writer, it is essential that you check the content. Think about the purpose of the document and consider whether what you have written will achieve this. Ask yourself:

- Have all the relevant points been covered?
- Who will be reading the document?
- Are the style and 'feel' appropriate?
- How will the reader feel when he or she reads it? (Imagine that you are the reader)

This is particularly important when writing a letter or a document that you want someone to respond to. If you have typed a document written by someone else, it is still sensible to be aware of the content. You might notice something important that the writer overlooked. What you do about content issues will depend on your role in the organization and your relationship with the writer.

2.3.2 Checking the spelling

You can use the computer's **Spelling and Grammar** check to help you identify spelling errors. It is a good tool but can't be relied on as it has limitations:

- Any word that is not in its dictionary is identified as a possible error
- It will only tell you if a word has been spelt wrongly.

Hence, the following subtopics enable you to check errors and amend the errors.

To keep a check on your speed and accuracy, set your targets for every day and for every week. Measure your performance regularly in the form of a chart till you achieve your set goal.

Example, speed and accuracy . Count the words above (6)

Tips for improving speed and accuracy

- Use your developing touch-typing skills whenever you use the keyboard.
- Record your progress. Many programs record the speed and accuracy with which you do the exercises or provide speed and accuracy results after you have completed a set piece of text.
- When you finish the course, consider redoing it at a higher level. Set

higher speed and accuracy goals first.

- If you have been touch-typing regularly your speed and accuracy will

have improved significantly.

Typing positions

Know how about the typing position is important and typical typing positions are hereunder:

- Eyes on copy
- Fingers curved and upright
- Forearms parallel to slant of keyboarding
- Sit back in chair, body erect
- Text book or material you copied from which should be at the right side of a machine and elevated for easy reading
- Table free of unneeded books or materials

2.3.3 Typical finger positions

- Let your hands hang loosely at your sides. Your fingers will relax in curved position.
- With fingers curved in this relaxed position, lightly place fingertips of your hands on home keys (left home keys are A,S,D and F and right home keys are J, K, L and ;).

Reach techniques for keys other than home keys. You can reach other keys by moving up and down with your corresponding fingers. Example, you can reach down letter Z with left small finger and you can also reach up letter U with right first finger.

Self check- 2

Self check Written

Name _____Id no_____ Batch _____Date_____

Instruction 1:- Choose the best answer for the given alternatives. (8Ponit)

_____1. _____ is a place where your fingers should rest.

a. Keyboard b. keys c. home keys d. all

_____2. Your left little finger is placed on ___ letter on the keyboard

a. “B” letter b. “A” letter c. “;” letter d. all

_____3. The Enter key is pressed with the _____finger

a. “ ; “ finger b. “A” finger c. “L” finger d. none of the above

_____4. Your right little finger are placed on ____ letter on the keyboard

a. “B” letter b. “A” letter c. “;” letter d. all

_____5. The first left finger moves across the letter _____

a. Letter “H” b. letter “G” c. letter “J” d. none of the above

_____***6.*** ___ is designed for keying in numbers

a. Keys b. numeric keypad c. letter d. all

_____7. ____ is used to separate ideas in the one sentence and a space is left either side.

a. Dash b. full stop c. slash d. none of the above

_____ 8. is a place where your fingers should rest.

a. Keyboard b. keys c. home keys d. all

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page

1. Match column A with column B **(10 point)**

A	B
_____1. Used to move to the next line	A. Back space key
_____2. To make a single letter capital one	b. Delete key
_____3. To move among lines or characters	c. Enter key
_____4. Indicate status of number key	d. Space bar key
_____5. Delete characters to the left of the cursor	e. Shift key
_____6. Make gap between words/characters	f. Tab key
_____7. To make all letters capital	g. Arrow key
_____8. Special keys	h. Caps lock key
_____9. Used to indent space	i. Alt, ctrl, esc keys
_____10. Delete characters to right of the cursor	j. Num lock

Write short answer to the following questions.(10 points)

1. _____ key is also called a return key.

2. Differentiate between Home Keys and Guide Keys.

3. What do you understand by Guide Keys? Name the Guide Keys of:

(a) Computer keyboard

(b) Typewriter

4. Explain the role of typing ergonomics.

5. Why the use of various typing software is common now-a-days?

6. Mention the finger allocation of keys of Bottom Row of computer keyboard.

Note: Satisfactory rating – 15 and above points Unsatisfactory - below 15 points

Operation sheet 2

Operation sheet **2.2 OPERATION TITLE:** keyboard touching technique

PURPOSE: the purpose of the operation sheet is to show all necessary conditions and steps in typing on keyboarding.

CONDITIONS OR SITUATIONS FOR THE OPERATIONS: before starting

using typing on keyboarding first identify the task and lesson requirements on typing the data and other all things to be completed.

EQUIPMENT TOOLS AND MATERIALS: Computer, Mavis application

PROCEDURE: Choose Mavis from all programs or from desktop

- **Click new and write new name if you are new user**
- **Check English and standard option and then click ok**
- **Click ok**
- **Select lesson**
- **Select beginner lesson**
- **Click start**

PRECAUTIONS: Be careful from touching any electric power and save your documents properly before you close your program.

QUALITY CRITERIA: you should reach the required speed and accuracy.

Operation sheet 2.1

Title **Applying touch typing technique to type home keys**

Instructions to operate home keys

A is typed with the left small finger

S is typed with the left ring finger

D is typed with the left middle finger

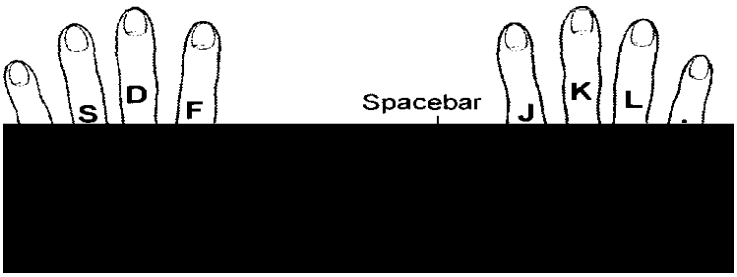
F is typed with the left forefinger

J is typed with the right forefinger

K is typed with the right middle finger

L is typed with the right ring finger

; is typed with the right small finger



Instructions

1. Do not look at the keyboard.

2. Each letter should come beneath the other.

3. Concentrate your mind on the text.

4. Typing should be done quite accurately with constant rhythm.

5. Repeat this process until mastery over this exercise.

Operation sheet 2.2

Title	Applying touch typing technique to write letter e, t and n

e is typed with the d finger
t is typed with the f finger
n is typed with the j finger

Instructions

1. Do not look at the keyboard.

2. Each letter should come beneath the other.

3. Concentrate your mind on the text.

4. Typing should be done quite accurately with constant rhythm.

5. Repeat this process until mastery over this exercise

Operation sheet 2.3

Operation sheet 2.2.2	Applying touch typing technique to write Amharic and English Letter

asdfg;lkjh fads lall

ኢንተርኔት ማለት በተለያየ ዓለም ክፍሎች ኮምፒውተሮች በስልክ መስመሮች በሳተላይትና በሌሎችም የተለያዩ የመገናኛ ቴክኖሎጂዎች (communication technologies) በመታገዝ የሚገናኙበትና መረጃና መልእክት የሚለዋወጡበት ትልቅ አለም አቀፍ ኔትወርክ ወይም የግንኙነት መረብ ነው፡፡ የዚህ አይነት ኮምፐዩተሮችን በኔት ወርክ ማገናኘት የተጀመረው በአሜሪካ መከላከያ ዲ□ርትመንት ውስጥ በአጽህሮተ ቃል (DARPA) ተብሎ ይጠራ በነበረ የምርምር ተቋም ውስጥ ነበር፡፡ ስለዚህም ይህ የኮምፐዩተር ኔትወርክ የመጀመሪያ ስሙ DARPANet ነበር፡፡ ቀስበቀስ ግን ዩኒቨርሲቲዎችና ቀጥሎም የንግድ ተቋማት የዚህ አይነትኔት ወርክ ውስጥ ኮምፐዩተሮቻቸውን ሲያስገቡና ቴክኖሎጂውም ከአሜሪካ ወጥቶ ሌላውን የአለም ክፍል ሲያዳርስ «Internet » የሚል ስያሜ ተሰጠው፡፡ በአሁኑጊዜ በተለያዩ የአለም ክፍሎች የሚገኙበብዙ ሚሊዮን የሚቆጠሩ ኮምፐዩተሮች ከኢንተርኔት የሚቀላቀሉ ኮምፐዩተሮች ወይም ተጠቃሚዎች ቁጥር በከፍተኛ ፍጥነት እየጨመረ ይገኛል፡፡

Instructions

1. Do not look at the keyboard.
2. write Amharic and English letter
3. Concentrate your mind on the text.
4. Typing should be done quite accurately with constant rhythm.
5. Repeat this process until mastery over this exercise

Lap test

Lap test	Applying touch typing technique to write Amharic Letter and English

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given Necessary Information/Instruction, Equipment And Materials You Are Required To Type The Following Home Keys Within.

asdfg;lkjh fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask fads lall dask sad slak flask

ኢንተርኔት ማለት በተለያየ ዓለም ክፍሎች ኮምፒውተሮች በስልክ መስመሮች በሳተላይትና በሌሎችም የተለያዩ የመገናኛ ቴክኖሎጂዎች (communication technologies) በመታገዝ የሚገናኙበትና መረጃና መልእክት የሚለዋወጡበት ትልቅ አለም አቀፍ ኔትወርክ ወይም የግንኙነት መረብ ነው። የዚህ አይነት ኮምፕዩተሮችን በኔት ወርክ ማገናኘት የተጀመረው በአሜሪካ መከላከያ ዲ□ርትመንት ውስጥ በአጽህሮተ ቃል (DARPA) ተብሎ ይጠራ በነበረ የምርምር ተቋም ውስጥ ነበር። ስለዚህም ይህ የኮምፕዩተር ኔትወርክ የመጀመሪያ ስሙ DARPANet ነበር። ቀስበቀስ ግን ዩኒቨርሲቲዎችና ቀጥሎም የንግድ ተቋማት የዚህ አይነትኔት ወርክ ውስጥ ኮምፕዩተሮቻቸውን ሲያስገቡና ቴክኖሎጂውም ከአሜሪካ ወጥቶ ሌላውን የአለም ክፍል ሲያዳርስ «Internet » የሚል ስያሜ ተሰጠው። በአሁኑጊዜ በተለያዩ የአለም ክፍሎች የሚገኙበብዙ ሚሊዮን የሚቆጠሩ ኮምፕዩተሮች ከኢንተርኔት የሚቀላቀሉ ኮምፕዩተሮች ወይም ተጠቃሚዎች ቁጥር በከፍተኛ ፍጥነት እየጨመረ ይገኛል።

Unit three: Checking accuracy

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Proofread document to carefully identify errors
- Amen document, and correcting errors

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Proofread document to carefully identify errors
- Amend document, and correcting errors

3.1 identifying and correcting Document errors carefully

Proofreading Document To Carefully Identify Errors

Check Accuracy of Your Work

When you have completed typing a document, you need to check to make sure that it is free from errors. Most organizations have a policy that says all documents should be free from spelling and punctuation errors. Errors can have practical consequences – they can cause misunderstandings, offend people or, in the case of an incorrect address, result in mail not being received. As well, when errors are left in a document, the organization looks unprofessional.

Checking the content

If you are the writer, it is essential that you check the content. Think about the purpose of the document and consider whether what you have written will achieve this. Ask yourself:

- Have all the relevant points been covered?
- Who will be reading the document?
- Are the style and 'feel' appropriate?
- How will the reader feel when he or she reads it? (Imagine that you are the reader).

Checking the spelling

You can use the computer's **Spelling and Grammar** check to help you identify spelling errors. It is a good tool but can't be relied on as it has limitations:

- Any word that is not in its dictionary is identified as a possible error
- It will only tell you if a word has been spelt wrongly.

Proof reading

Checking your work is called **proofreading.** You should check it on the computer screen first. This saves time and paper. Then print the document and check the printed (hard) copy. To proofread your work you should check the:

- ✓ Spell check
- ✓ Checking for grammatical errors
- ✓ Checking for punctuation errors
- ✓ Checking documents for general accuracy

Conscientious typists always checks carefully what they have typed. Paragraphs are proofread; that is, they read for meaning, as if they had not been read before. Figures, proper names, and uncertain spellings are double checked against the original or some other sources. In addition, completeness should be also checked.

Some proofreader marks/symbols are listed hereunder:

3.2 Checking final document accuracy

Amending Document, and Correcting Errors

When errors are found, correct or amend them carefully. Errors may be spelling, punctuations, space, figures, capital or small letters, incompleteness and grammars etc.

Follow these steps.

1. Look at your printed document to make sure that it is set out correctly.
2. Read it through quickly to check for any obvious errors. Circle any errors in red pen.
3. Place the original document and the printed document beside each other on the desk.
4. Place the original on your left and the printed document on your right. Reverse this if you are left-handed.

5. Use a ruler to move down, line by line, on the original.

6. Keep your place on the printed document with the point of your biro.

7. Pay particular attention to names and addresses, checking them carefully against the original.

8. Mark any corrections on the printed document as you go.

9. As a final check, read the document aloud.

10. Make the corrections on the computer copy and print out a final copy.

Four Steps to Ensure Accuracy in Your Written Communications

Think of written materials like a shop window—the transparency a well-put-together document affords a company is most likely the best advertisement they can get. However, any mistakes that are not caught and get into print or published online reflect badly on not only the writer, but on the entire organization or publication as well. When a document has inaccuracies, readers tend to distrust everything, including the statistics, opinions, and facts.

But the term "accuracy" implies several things. Not only is accuracy about checking that the text is factually and grammatically correct, but also that all the style guidelines have been adhered to. As a writer, one of the most important ways to communicate your expertise in writing is to ensure accuracy. Consider the following four ways to ensure accuracy in your written documents.

1. Check Your Facts

As you might expect, one of the most important things that you'll need to consider in whatever you write or edit is the factual accuracy. You can have eloquent, grammatically correct prose, but if you've got the facts wrong, then your reputation and professionalism will suffer. Double-check any statistics, numbers, dates, names—especially spellings—and other facts with a reliable source or two.

2. Use Spell-check, but Don't Rely Solely on It

Many, if not all, people who work with text would be unhappy if they didn't have their onscreen spell-checker to refer to. Spell-check can indicate and even automatically correct typos and other misspellings that would be time-consuming to find otherwise. Running spell-check when you're done writing is an important step to ensure accuracy. Still, relying

completely on the spell-checker that you've got built into your software can be risky.

3. Use a Style Guide

A style guide is a reference that you can use to ensure style consistency in every document you produce. These books cover everything from how to reference states (for example, using the postal abbreviations, spelling out the whole name, or another abbreviation) and other proper nouns, to whether or not to use the serial comma. These are the often-overlooked details that give your documents a professional edge. The key to using a style guide effectively is to simply choose one and stick to it—using it to check everything you write, every time.

4. Find an Objective Reader

The fourth way to ensure accuracy is to have someone else—an objective outsider—check over your work. As the writer, it can be hard to detect ambiguous statements because you know what your intended meaning was. Adding someone else to read your text is the best way of ensuring your intended meaning is clearly communicated to your readers. The ideal objective reader will also know proper grammar, punctuation, and style.

Self check 3

Self check	Short answer question

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. _____ is called checking your works**.**(**1point**)

2. Proof reading a document includes checking _____,_____,_____ and _____?**(4 points)**

3. What are the practical consequences of preparing a document with errors**?(3 points)**

4. What are the limitations of a computer's spelling and grammar check to use as a correcting tool for spelling and grammar of your document**? (2 points)**

5. Write short answer to the following questions. (5 points)

6. What are the practical consequences of preparing a document with errors**? (3 points)**

7. . What are the limitations of a computer's spelling and grammar check to use as a correcting tool for Spelling and grammar of your document? **(2 points)**

Note: Satisfactory rating – 10 and above 10points Unsatisfactory - below 10 points
You can ask you teacher for the copy of the correct answers.

Operation sheet 3

Title	**Instructions to Proofread your document**

Instructions

- Type the document
- proof read it
- Correcting all errors.
- Amend the document

Operation sheet3.1 **Instructions to Proofread your document**

Did you see that advertisement in the business section of teh newspaper this morning? There are several computors which are being offered at excellent prices. (4 errors)

A good secetary should all ways keep a list of staff addreses and phone numbers handy. It may be neccesary to call staff at home in an emergency. (4 errors)

Weekly staff meetings will be held on the first monday of each month. Each employee will recieve an agenda the week befroe each meeting. (3 errors)

It is important that aLL work is proofread before printed. It is more dificult to correct errors once the work has been printed in your work processer. (5 errors)

There are too spaces after a semi – colon;there is one space after a comma. (3 errors)

Medecare hospital cover is for the ful cost of shared acomodation in a public hospitle where a hospital docter provides the treatment. Outpashent treatment is also covered. Medicare does not pay the cost if you are to be treated by a doctor of your own choise. There is knowkover for hospitalisation oversees. (10 errors)

At auction sales, prospective buyers bid for a item being ofered and the eventual buyer will be the bidder who offers the highistprise. The person who conducts the sale in called an auctineer, and must have a license. The auctioner acts as agent for the owner of the goods and, for this servise, is paid a comission. (10 errors)

REFERENCES AND WEBSITES

- How to Learn Typewriting by Dr R C Bhatia, G Lal & Co.
- Learning to Touch-Type by Shlomo Perets, MicroType
- Principles of Typewriting by D.P. Bhatia & S S Sangal by Pitman S S Publications.
- List of Free Touch Typing Software and Online Resources
- Touch Typing Made Simple by Lillian S. Mark
- Title 10 Finger Break Out Analytical Eye Typing Tutor a Type Trainer4Mac Bruce's Unusual Typing Wizard Gabe's TypOmeter kbTrainer

Internet Sites

- **www.google.com**
- **www.yahoo.com**
- **www.fanbox.com**
- **www.perfspot.com**
- **www.codeproject.com**
- **www.iask.com**

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