General Knowledge Assignment 1

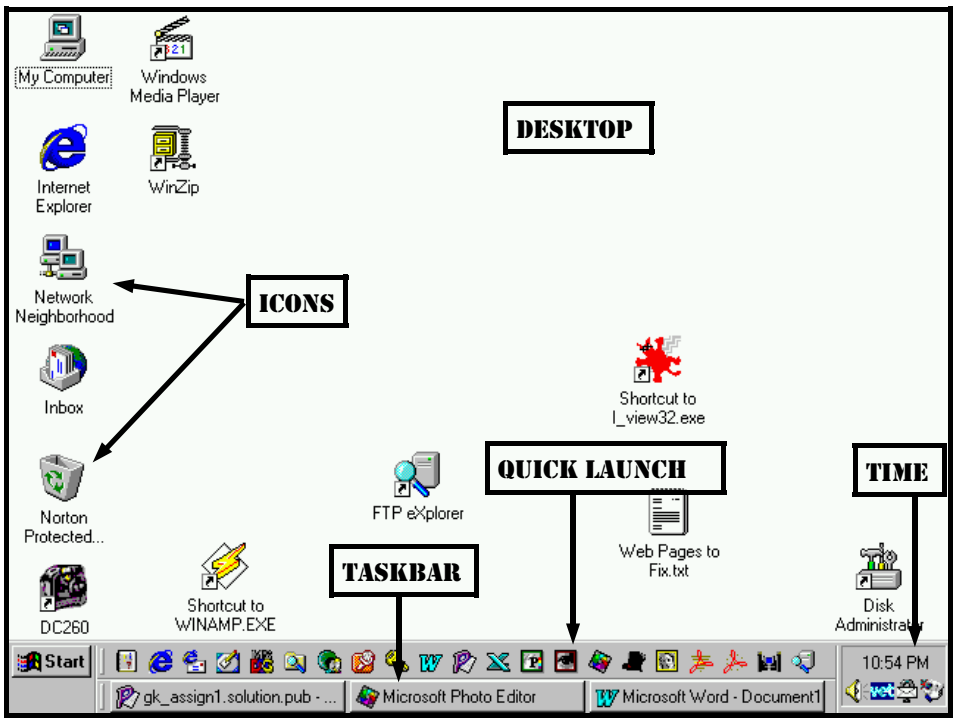
March 25, 1999

WIMP – Windows, Icons, Mouse Pointer

The below drawings can either be made by hand, or print outs of the screen can be made.
Hint: Alt+Print Screen will capture the active program onto the clipboard.

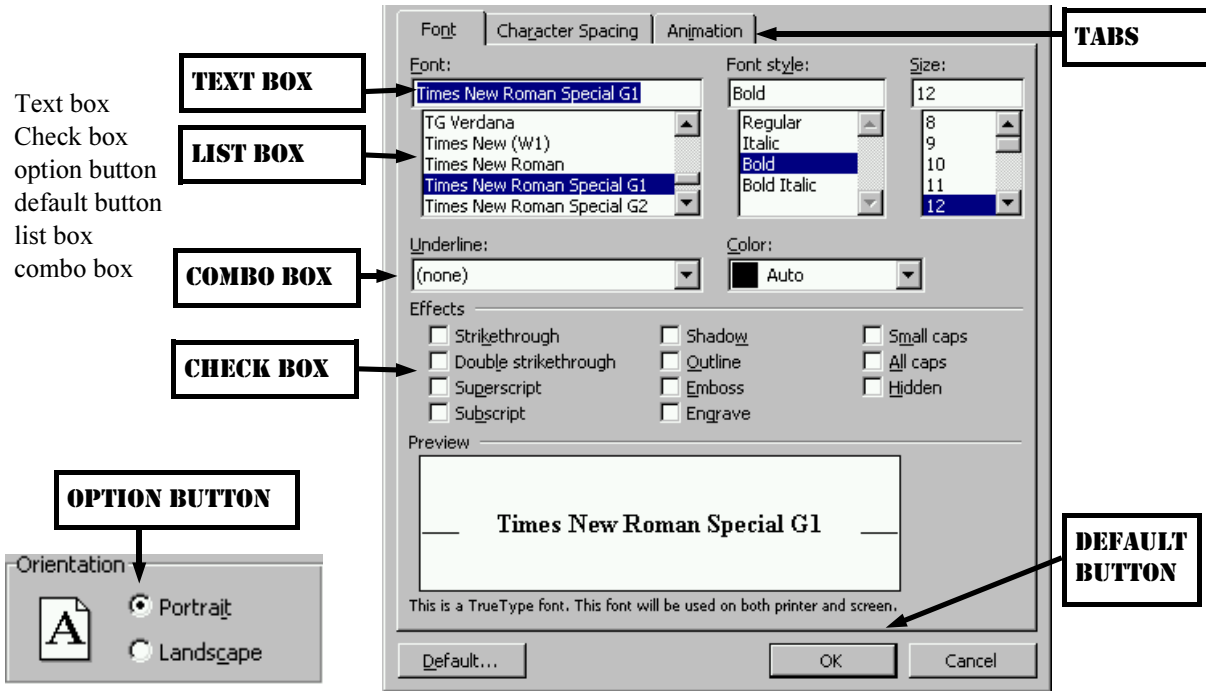
1. Draw and label a diagram to clearly outline the following: *(5 Marks)*

- Desktop
- Icons
- Task Bar
- Start Button
- Clock

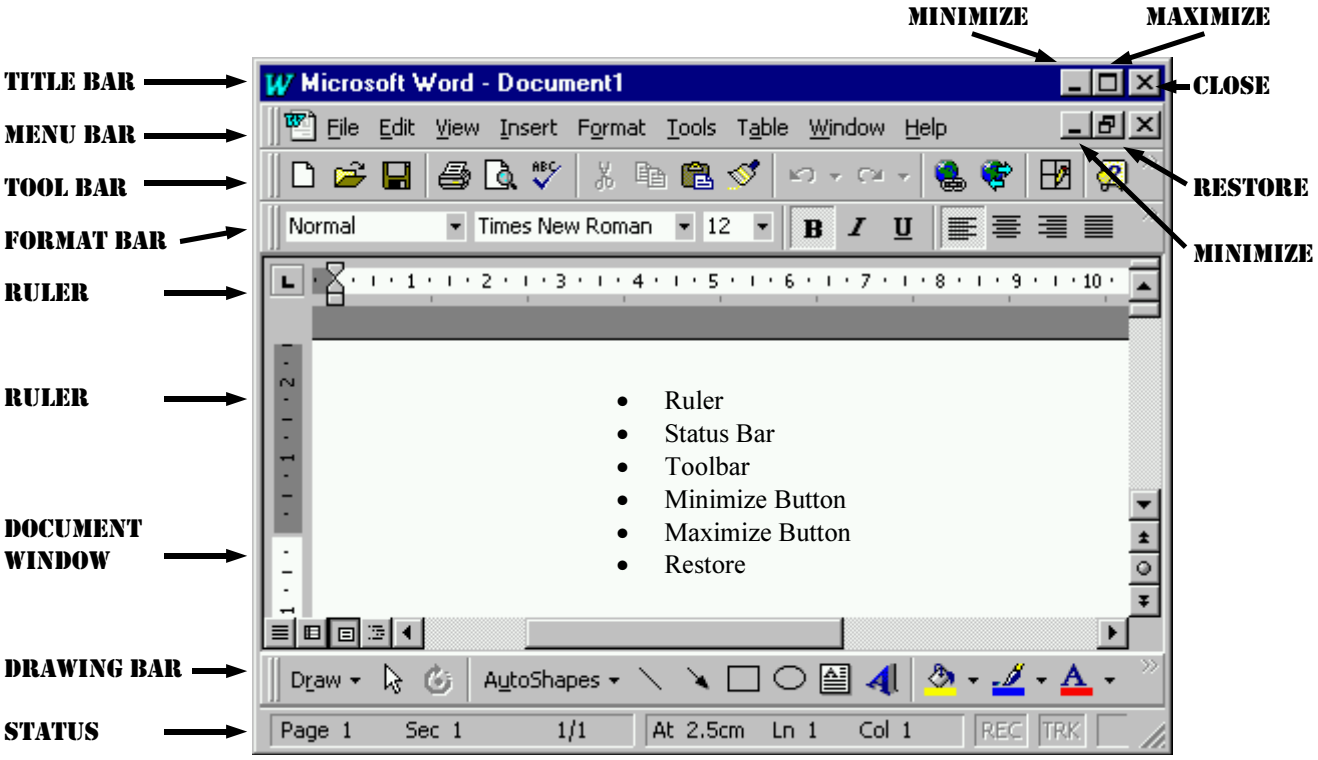


2. Draw and label diagrams to clearly outline examples of the following dialog box items: *(6 Marks)*

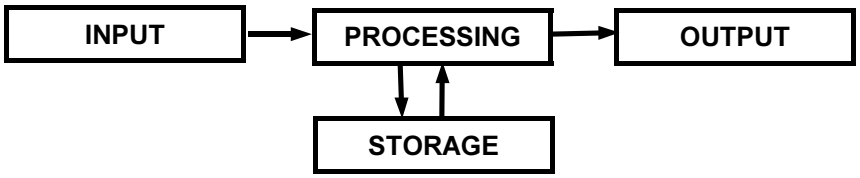
- Text box
- Check box
- option button
- default button
- list box
- combo box



3. Draw and label diagrams to clearly outline examples of the following document items *(6 Marks)*



4. Draw and label a diagram defining the major components of a computer *(4 Marks for correct boxes and label for boxes. 4 Marks for correct use of arrows.)*



5. Describe the interaction between each of the diagram items above that are connected with arrows (6 Marks, *which is 2 marks for each correct grouping description*)

A digital computer is a machine that can be programmed to accept data (input) and process it into information (output). Where necessary the computer may use storage devices to store information. A classical definition, supported by the below chart defines a computer as:

A computer is a device that accepts **input**, **processes** data, **stores** data and produces **output**.

6. Write a description about why each of the below items can have negative effects on Computers and suggest a solution? *(8 marks)*

Humidity.

Humidity, moisture content of the atmosphere. The atmosphere contains moisture in the form of water vapor in varying amounts depending on the temperature. The amount of vapor that will saturate air increases with a rise in temperature.

Humidity, in Pacific Islands such as Tonga, carry water vapor as well as salt particles mixed with the water. Problems occur when the air cools inside the computer, so the water vapor condenses and forms a solid leaving on the computer the salt. The solid salt over time gradually 'eats' at the silver soldering that joins the electronic components together. Like rust eating away at metal, the effect of the salt causes a 'break' in the connection thereby preventing the electronic components from correct contact with each other.

This break may cause computers to function incorrectly, or may even cause complete system failure (unable to function

in any form.)

Dust.
Problems with dust in Pacific Countries include the high 'corral dust' which is abrasive, rough and more readily damages floppy disks. Dust particles are large compared to

The secondary problem with Dust is it can form a layer of 'insulation' above the chip, electronic components, which can prevent these parts from releasing excess heat.

Heat.
In general terms, heat is more problematic to the human operators than to microcomputers. Microcomputers are generally tested to work within heat conditions far greater than an operator can consistently work in.

Computers, as with all electronic products, when operated at heat conditions beyond what they are tested for, the electronic components can fail. Without proper release of heat, the electronic components can fuse together and not work as designed.

Solution
Air conditioning is a good solution for problems with humidity, dust, and heat as are other solutions to minimising the causes of humidity, dust, and heat.

Dust is minimised with air-conditiong by sealing the room from dust. Another method in Tonga is to locate computer equipment in a relatively dust-free environment such as rooms away from the road and dirt pathways. Dust problems, settling inside computers, can be minimised by regularly cleaning the computer. The outside can be cleaned through the use of a good brush and cleaning cloth, while the inside can be cleaned with care through the use of a blowing tool or brush.

Although there is little else to minimise humidity, careful attention to cleaning a computer can minimise the effects of salt condensation on computer parts.

Heat can be solved with air-condition and by also using a well ventilated (good air circulation) location for the computer. A seat near a good window with good air-flow in and out of the room can be just as effective as air-conditioning.

7. Draw a diagram of a computer keyboard, labeling all the groups of keys (or the specific key) listed below. *(13 Marks)*
ENTER (Return), TAB, SPACE, BACKSPACE, Esc, Control Key, Shift, Alt, Function Keys, Numeric Keypad, Alphanumeric Keys, Document Keys (Navigation Keys), Indicator Lights.