



MACHAKOS UNIVERSITY

University Examinations for 2017/2018

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR FIRST SEMESTER EXAMINATION FOR
BACHELOR OF SCIENCE ELECTRICAL AND ELECTRONICS ENGINEERING
BACHELOR OF SCIENCE CIVIL ENGINEERING
ECU 109: FUNDAMENTAL OF COMPUTING

DATE: 19/12/2017

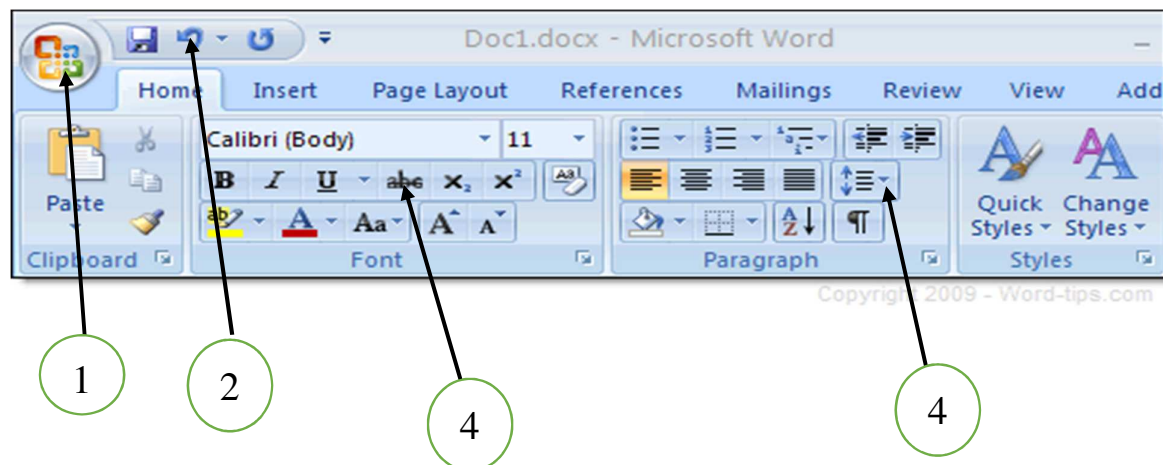
TIME: 8.30-10.30 AM

INSTRUCTIONS

Answer Question ONE and any other TWO Questions

QUESTION ONE (30 MARKS)

- a) Identify the following parts labelled 1 - 5 of a word 2007 document. (4 marks)



- b) By use of a diagram explain functional components of a CPU. (6 marks)
- c) Differentiate between the following types of memory (6 marks)
- i. Cache memory

- ii. Registers
 - iii. Primary memory.
- d) State the importance of the following short cut keys as used in MS Excel. (4 marks)
- i. Ctrl + S
 - ii. Ctrl +Z
 - iii. Ctrl + V
 - iv. Ctrl + A
- e) i) With the aid of sketches, describe TWO page orientation options that can be applied in a word processing document. (6 marks)
- ii) State the keyboard key used to perform each of the following tasks in a word processing program:
- Moving the cursor to the next line.
 - Deleting a character to the left of the cursor.
 - Activating the help facility.
 - Switching the keyboard from lower to upper case characters. (4 marks)

QUESTION TWO (20 MARKS)

- a) State **FOUR** differences between Magnetic Storage and Optical storage (4 marks)
- b) Explain **FIVE** functions of an operating system (10 marks)
- c) Sketch the output of the following HTML Script (6 marks)

```
<html>
  <header> <title> Machakos University </title>          </header>
<body>
  <h1> <center>MANDATE </center> </h1>
  <p> <center>
    The core mandate of Machakos University is to Teach, Train, conduct Research,
    Innovate, Collaborate, generate new knowledge and Community Service.
  </center> </p>
  <center>Copy Right 2017</center>
</body>
</html>
```

QUESTION THREE (20 MARKS)

- a) Carol realised the following ERRORS displayed in a worksheet she was working on:
- i) #####

- ii) #NA
- iii) #DIV/!
- iv) #NAME?
- v) #VALUE!
- vi) #REF!

Identify the possible cause for each of the errors.

(6 marks)

- b) Figure 2 shows an extract of examination results compiled using a spreadsheet program.

	A	B	C
1	NAMES	MARKS	GRADE
2	John	12	
3	Moses	45	
4	Jane	89	
5	Mary	90	

The college intends to determine the grade for each student on the following criteria.

MARKS	GRADE
0 – 40	Fail
41 – 60	Pass
61 – 100	Distinction

Using cell addresses and appropriate logical function, write the formula that could be used to determine the grade for John.

(4 marks)

- c) Explain **TWO** Network Topologies clearly explaining the advantages and disadvantages of each?
- (6 marks)
- d) John, a student at Machakos University was asked to categorise the following software as either Operating system or Application software;

MS Office 2013, Linux, Kaspersky, Windows 8

List the correct software in each category

(4 marks)

QUESTION FOUR (20 MARKS)

- a) Explain each of the following terms as used in Internet applications.
- (6 marks)
- i) Search engine;
 - ii) HTML;

- iii) Bookmark;
 - iv) Cookie.
 - v) Browser
 - vi) URL
- b) The vice chancellor of Machakos University has asked you to advise him / her on how to get rid of a virus in his / her laptop
Explain **THREE** ways that you can use to protect your computer from computer virus.
(6 marks)
- c) Lucy observed a secretary in a rural school using a computer whose screen was flickering and also positioned above her eye level. Explain **FOUR** risks posed to the secretary.
(8 marks)

QUESTION FIVE (20 MARKS)

- a) Define the term computer network (2 marks)
- b) State at least **THREE** devices used in data communications. (3 marks)
- c) Using an illustration, describe the stages of data processing cycle (5 marks)
- d) Describe at least five types of electronic data processing modes (10 marks)