



FIJI NATIONAL UNIVERSITY
COLLEGE OF ENGINEERING, SCIENCE & TECHNOLOGY

SCHOOL OF ELECTRICAL & ELECTRONIC ENGINEERING

TRADES CERTIFICATE IN ELECTRONIC ENGINEERING STAGE 3

UNIT CODE: EEE419

UNIT NAME: COMPUTER SYSTEMS

FINAL EXAMINATION – PENSTER II 2016

DAY/DATE: Thursday 26th

TIME: 09:00-11:00

ROOM: A Block – Derrick Campus

INSTRUCTIONS TO STUDENTS

1. You are allowed 10 minutes extra time during which you are not to write.
2. Write your candidate number on the top of each sheet of the answer booklet.
3. Write all your answers in the answer booklet provided.
4. For all sheets of paper on which rough/draft work has been done, cross it through and attach these to your answer script.
5. Remove the section A answer sheet from the examination paper and insert it in the answer script then secure with a string
6. Attempt all the Questions.

SECTION A**MULTIPLE CHOICE****30 MARKS**

Write the **Alphabet** of the **best choice** in the Answer Sheet attached at the back of the question paper. When you have completed this section, remove the answer sheet, insert it into the answer booklet and tie with a string. **(1.5 marks each)**

- 1) Computer hardware is divided into two main types:
 - A) Temporary and permanent
 - B) Outputs and displays
 - C) Inputs and output devices
 - D) Monitors and printing devices

- 2) Two beeps in an AMI coded systems means:
 - A) Memory parity error
 - B) Visual mode error
 - C) DRAM failure
 - D) VGA failure

- 3) A motherboard that is 12 inches long and 11 inches wide is a ____ motherboard:
 - A) Baby AT
 - B) ATX
 - C) Full AT
 - D) IBM

- 4) A standard communication code for modern computers:
 - A) RAM
 - B) ASCII
 - C) SDRAM
 - D) ALU

- 5) A group of electrical conductors that can carry at least eight bits from one point to another is a ____.
 - A) RAM
 - B) Bus
 - C) ROM
 - D) BIOS

- 6) A Baby AT motherboard is easily recognized by having at the top right hand corner of the board a:
- A) SPDIF jack
 - B) DIN keyboard connector
 - C) USB connector
 - D) VGA adaptor
- 7) Select the odd one out from the list below:
- A) Hardisk
 - B) Modem
 - C) Network Interface card
 - D) UPS
- 8) Printer, Monitor, Plotter and Speakers are examples of
- A) Display devices
 - B) Output devices
 - C) Peripheral devices
 - D) Client devices
- 9) Soft power support in ATX motherboards has enabled the following to be undertaken:
- A) Faster graphics adapters
 - B) Expansion slots
 - C) Dual operations
 - D) Power off by the software
- 10) The connection to the outside world for a computer is provided by:
- A) Network cards
 - B) ports
 - C) Modem
 - D) ISP
- 11) The number of adjacent bits that can be stored and manipulated as a unit is a ____.
- A) Byte
 - B) Word
 - C) String
 - D) Bit

12) How do you identify a processor on the motherboard?

- A) It is clearly labeled
- B) It has a heatsink or fan on top of it
- C) It's colour coded
- D) It has blinking LED's.

13) 168-pin DIMM are installed in_____.

- A) Sets of Four
- B) Sets of Two
- C) single sets
- D) In sets of Three

14) Basic standard ASCII consists of 128 codes representing the English alphabet, punctuation, and certain _____.

- A) Memory spaces
- B) Operation characters
- C) Input signals
- D) Control characters

15) An argument is a _____:

- A) reasoning
- B) agreement
- C) value, or reference to a value, passed to a function..
- D) binary bit

16) Cache that is located outside the processor, is a____ Cache.

- A) Level 1
- B) Basic
- C) Level 2
- D) Virtual

17) Expansion slots on motherboards are identified by their colours. PCI slots are coloured:

- A) Black
- B) White
- C) Brown
- D) Silver

18) Expansion slots on motherboards are identified by their colours. ISA slots are coloured:

- A) Black
- B) White
- C) Brown
- D) Silver

19) There are usually two COM ports on each system, COM1 and COM2. COM ports are also known as_____.

- A) Networking ports
- B) serial ports
- C) Interface ports
- D) Parallel ports

20) You must watch for _____ and pin damage when handling a CPU.

- A) correct pin configuration
- B) electrostatic discharge (ESD)
- C) correct orientation
- D) correct polarity

SECTION B**COMPUTER HARDWARE BASICS****20 MARKS**

1. What computer component stores settings about devices such as hard drives?
2. What are the two major technologies that are used for hard drives in today's computers?
3. What is the difference between firmware and software?
4. The BIOS of your computer contains settings for the types of hard drives that are installed and for the current time. True or False?
5. All devices receive their power from the system board. True or False?
6. What is the first step in the boot process?
7. Modems perform what type of signal conversion?
8. Name at least two technologies that are generally associated with portable computers.
9. What is the physical difference of the EISA and the PCI expansion slots on computer motherboards.
10. Compare the sizes of a full AT and a Baby AT motherboard (in their dimensions).

(each question is worth 2 marks each)

SECTION C

COMPUTER MOTHERBOARDS

20 MARKS

1. Which system board form factor incorporates AGP?
2. Which socket type is used to hold classic Pentium processors?
3. Which bus architectures have a 32-bit data path?
4. An ISA card can fit into which other bus architecture's slot?
5. What is the purpose of bus mastering?
6. PCI cards come in two flavors, ___ bit and ___ bit.
7. What bus architecture is typically found on Pentium systems?
8. ISA cards come in two flavors, ___ bit and ___ bit.
9. What is the transfer rate of USB devices?
10. PCI devices run at _____ MHz.

(each question is worth 2 marks each)

SECTION D

INSTALLATION & MAINTENANCE

20 MARKS

1. What is the purpose of practicing preventive maintenance with your computer?
2. List down the activities involved in preventive maintenance.
3. Which utilities do you use to maintain the hard disk?
4. _____ is used to clean the keyboard and rollers in the mouse.
5. How does a brownout affect your computer?
6. What is a UPS?
7. Explain the two types of UPS.
8. You boot your computer and it attempts to enter Safe Mode. Why does Windows usually attempt to enter Safe Mode?
9. What is the difference between a suppressor and a UPS?
10. At boot up, you get 5 short beeps and the PC freezes up. What is the faulty component that you will need to check?

(each question is worth 2 marks each)

SECTION E:

SOFTWARE BASICS

10 MARKS

1.

Write down the DOS command to enable you to see all the folders on C drive.

(2 marks)

2.

In DOS, create a folder called Pictures, then copy all the picture files with the .jpg extension in it.

(2 marks)

3.

What is the purpose of a compiler in C-programming

(1 marks)

4.

For each line of the C-program codes below, explain what it is and what it does:

```
#include <stdio.h>
int main( )
{
/* my first program in C */
printf("School of Electrical! \n");

return 0;
}
```

(5 marks)

END of EXAMINATION.

SECTION A MULTIPLE CHOICE

30 MARKS

ANSWER SHEET.

Circle the Alphabet of the best choice in the table below. When you have completed this section, remove the answer sheet, insert it into the answer booklet and tie with a string.

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D
14	A	B	C	D
15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D



EXAMINATION RESULT RECORD

CW WEIGHT:-

FE WEIGHT: -

MIN CW: -

MIN EX: -

MIN ATT -

No.	ID NUMBER	FIRST NAMES	SURNAME	ATT	CW	EX	IN	OUT	SIGN
1	2005000027	Waisiki	Masirewa						

Number Sat: - _____

Unit Lecturer: -

Paula Tuivanuayalewa

Date: - _____

Chief Invigilator: - _____

Date: - _____

HOS/HOD: - _____

Date: - _____

College Dean: - _____

Date: - _____