



**FIJI NATIONAL UNIVERSITY**

**COLLEGE OF ENGINEERING, SCIENCE & TECHNOLOGY**

**SCHOOL OF ELECTRICAL & ELECTRONIC ENGINEERING**

**TRADES CERTIFICATE IN ELECTRONIC ENGINEERING**

**UNIT CODE: EEE419**

**UNIT NAME: COMPUTER SYSTEMS**

**FINAL EXAMINATION – PENSTER IV 2016**

**DAY/DATE:** 13/10/16

**TIME:** 09:00 – 11:10am

**ROOM:**

**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

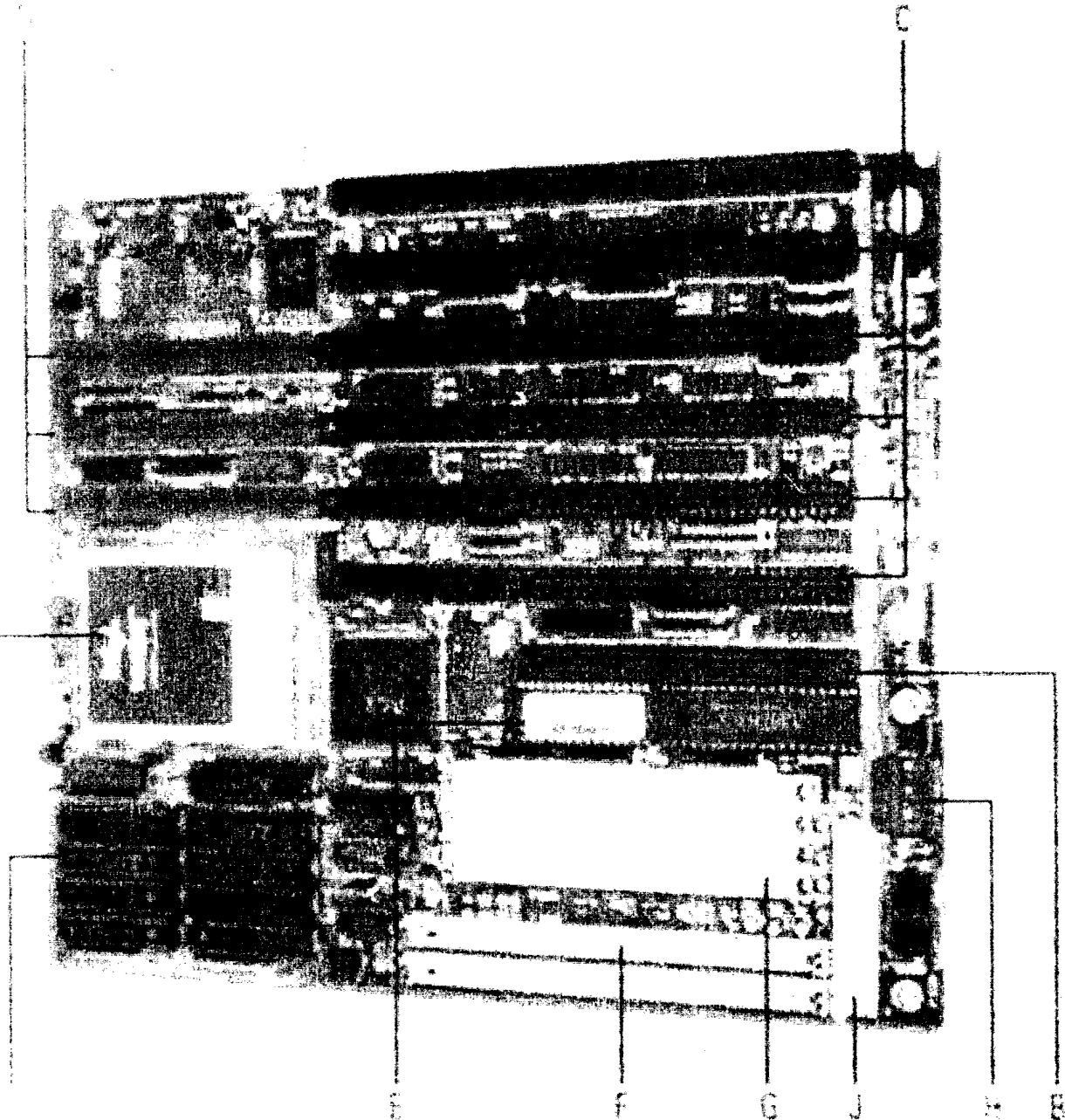
## MATCHING

30 MARKS

Choose the alphabet of the best answer from Statement B to match the expression in Statement A. In your answer sheet, write down only the number of statement A and the corresponding alphabet from the list of statement B. (1.5 marks each)

NO#	Statement A	NO #	Statement B
1	Number of adjacent bits that can be stored as a unit	A	ISA
2	Usually mounted over a processor on the motherboard	B	168-pin DIMM
3	Usually installed in single sets	C	Full AT
4	128 codes representing alphabets, punctuations etc	D	MODEM
5	Reference to a value passed to a function	E	BUS
6	Cache usually located outside of the processor	F	Baby AT motherboard
7	White coloured expansion slots	G	UPS
8	Black coloured expansion slots	H	Printer, screen, plotter, speakers
9	They are types of serial ports	I	Cooling fan
10	When handling CPU, take precaution for	J	Enables power off by software
11	Two divisions of computer hardware	K	Network card
12	Two beeps in an AMI coded systems mean	L	argument
13	A motherboard that is 12 inches long & 11 inches wide	M	Input & Output devices
14	Interface between the PC and the communication line	N	L2 cache
15	Conductor that carries the data bits in a computer	O	ESD
16	DIN k/board connector on the top right hand corner	P	Byte
17	Provides backup power to the PC	Q	COM1 & COM2
18	Types of output devices	R	PCI
19	Soft power support for ATX motherboards	S	Memory parity error
20	Provides connections to other computers	T	ASCII
		U	Bits

1. Identify the following motherboard components listed as A to J below:



(Write on the letter and the name of the part identified)

(1 mark each)

2. What is the first step in the boot process?
3. Modems perform what type of signal conversion?
4. Name at least two technologies that are generally associated with portable computers.
5. What is the physical difference of the EISA and the PCI expansion slots on computer motherboards.
6. Compare the sizes of a full AT and a Baby AT motherboard (in their dimensions).

**( 2 marks each)**

SECTION C

INSTALLATION & CONFIGURATION

20 MARKS

1. What is the most popular category of portable PCs? (2 marks)
2. Which battery type is the best for a portable computer? (2 marks)
3. What system or module makes a PC really portable or provides the ability to computers to be mobile? (2 marks)
4. What is a graphic accelerator? (2 marks)
5. Which PCMCIA card type is used to connect a CD-ROM drive? (2 marks)
6. The batteries of Tim's laptop seem to wear faster than his colleague's batteries, even though they use the same batteries and laptop. What could be the reason behind the short life of Tim's laptop batteries? (5 marks)
7. Amanda has replaced the old battery of her portable PC. However, her PC won't boot. What could be the problem? (5 marks)

(each question is worth 2 marks each)

SECTION D

INSTALLATION & MAINTENANCE

20 MARKS

1. You have just connected a harddrive to the motherboard of a PC and it is not been recognize by the system. What could be the problem and how will you solve it?
2. List down the activities involved in preventive maintenance.
3. The PC is getting sluggish and slow. What can you do to improve its response?
4. How do you maintain the keyboard and the mouse?.
5. The mouse and the keyboard suddenly stops responding to your actions. What could be the cause and how can it be avoided?
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 1 long and 8 short beeps. What will be the next thing you will notice?

(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. You are working on the help desk, and you receive a call from Mary. She is looking for a file that is saved on her hard drive. She has forgotten the name she gave it, but she knows that the title contains the budget, and that it is a Microsoft Excel spreadsheet. What command will best help her locate her document?

**(3 marks)**

3.

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

**(2 marks)**

4.

What is the purpose of a compiler in C-programming

**(1 marks)**

5.

With respect to C-programming, write down the codes to display the words "Certificate IV Programme" on the screen.

**(4 marks)**

**END of EXAMINATION.**