



FNU FIJI NATIONAL UNIVERSITY

COLLEGE OF ENGINEERING, SCIENCE & TECHNOLOGY (CEST)

SCHOOL OF ELECTRICAL & ELECTRONICS ENGINEERING

CERTIFICATE IV IN ELECTRONICS ENGINEERING-STAGE 1

EEE414- COMPUTER APPLICATION & SYSTEM

FINAL EXAMINATION – TRIMESTER 1, 2016

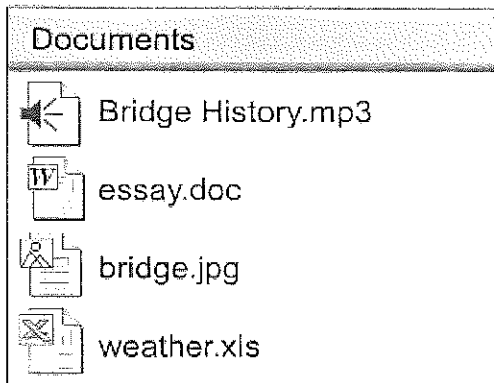
TIME ALLOWED= 2 HOURS

INSTRUCTIONS TO STUDENTS

- 1. You are allowed 10 minutes Extra reading time during which you are NOT to write.*
- 2. Begin each answer on a fresh page and use both sides of the sheet.*
- 3. Write your candidate-number at the top of each attached sheet*
- 4. Insert all written foolscaps, graph paper, drawing paper, etc. in their correct sequence and secure with string*
- 5. For all sheets of paper on which rough/draft work has been done, cross each one through and ATTACH these to your answer scripts.*
- 6. Write clearly the number(s) of the question(s) attempted on the top of each sheet.*
- 7. ATTEMPT ALL QUESTIONS.*
- 8. Show all workings where necessary.*
- 9. Do not use programmable calculators, especially the ones that does the conversions of number systems.*

1. A microprocessor unit, a memory unit, and an input/output unit form a:
 - A. CPU
 - B. Compiler
 - C. microcomputer
 - D. ALU

2. The screen shows four files in your Documents folder.



- What type of file is “Bridge History.mp3”?
- A. Audio
 - B. Graphics
 - C. Spreadsheet
 - D. Word Processing
-
3. A computer program that translates one program instructions at a time into machine language is called a/an
 - A. Interpreter
 - B. CPU
 - C. Compiler
 - D. Simulator

 4. Which of the following will you require to hear music on your computer?
 - A. Video Card
 - B. Mouse
 - C. Joy Stick
 - D. Sound Card

5. A formula has been entered into cell A4.

| | A | B | C | D |
|---|----|---|---|---|
| 1 | 2 | | | |
| 2 | 2 | | | |
| 3 | 6 | | | |
| 4 | 10 | | | |
| 5 | | | | |

If the value in cell A1 is changed to 5, what will appear in cell A4?

- A. 5
 - B. 13
 - C. #REF
 - D. =SUM(A1:A4)
6. Which of the following is not a font style?
- A. Bold
 - B. Italics
 - C. Regular
 - D. Superscript
7. Which device allows your computer to talk to other computers over a telephone line as well as access the internet?
- A. RAM
 - B. Modem
 - C. Hard Drive
 - D. CD-Rom drive
8. Which of the following commands is given to reboot the computer?
- A. Ctrl + Alt + Del
 - B. Ctrl + Alt + Tab
 - C. Ctrl + Shift + Del
 - D. Ctrl + Alt + Shift
9. Which file starts MS word?
- A. Winword.exe
 - B. Word.exe
 - C. Msword.exe
 - D. word2007.exe
10. MS-DOS is the name of a/an
- A. Application software
 - B. Hardware
 - C. System Software
 - D. None of these

11. To remove unneeded programs and related files from a hard disk you would use a _____.
- A. antivirus program
 - B. file compression program
 - C. troubleshooting program
 - D. uninstall program
12. When you power on a computer what is the first diagnostic routine which runs?
- A. POST
 - B. Diagnostics
 - C. Motherboard Test
 - D. Power good signal from the microprocessor timer chip.
13. Machine language is also known as
- A. Low level language
 - B. Assembly language
 - C. High level language
 - D. Source code
14. For quick reference help with MS-DOS commands in any of the versions of MS-DOS or Windows you can also use _____ after a command.
- A. /h
 - B. /help
 - C. /?
 - D. /
15. _____ allows you to create your own directories in DOS.
- A. md
 - B. mkdir
 - C. mkdir
 - D. createdir
16. _____ is a command used to switch directories in MS-DOS.
- A. rd
 - B. cd
 - C. md
 - D. sd
17. Different components and the motherboard of a PC unit are linked together by sets of parallel electrical conducting lines. What are these lines called?
- A. Conductors
 - B. Buses
 - C. Connectors
 - D. Consecutives
18. How do you change column width to fit the contents in ms excel?
- A. Single-click the boundary to the left to the column heading
 - B. Double click the boundary to the right of the column heading
 - C. Press Alt and single click anywhere in the column
 - D. All of above

19. A technician is about to service a computer. Which of the following steps should he take first?
- A. The technician should disconnect the hard drive to avoid file corruption.
 - B. The technician should open up the case with a properly sized screwdriver to avoid stripping the screws.
 - C. The technician should move the computer to a carpeted area to avoid impact damage.
 - D. The technician should put on an anti-static strap to avoid electrostatic discharge (ESD) damage.
20. When the fan in a power supply fails, which of the following actions should be taken?
- A. Replace the fan inside of the power supply.
 - B. Add an external cooling device.
 - C. Repair the fan inside of the power supply.
 - D. Replace the power supply.

SECTION B

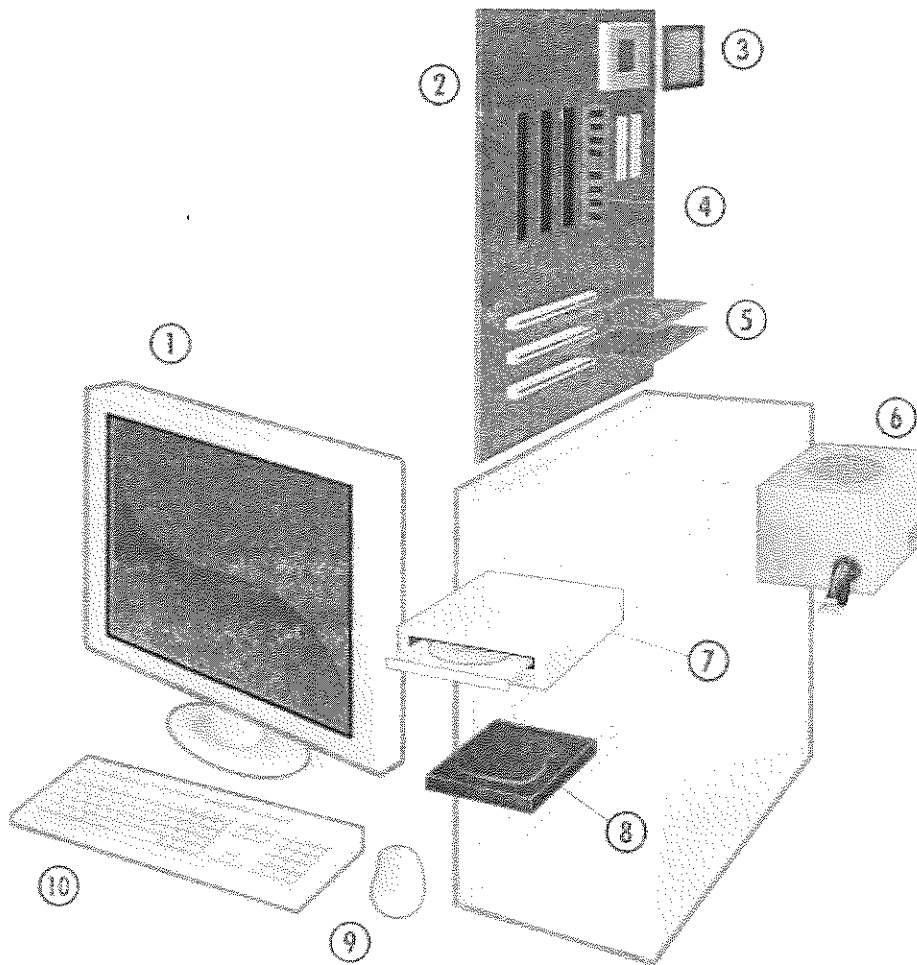
TRUE & FALSE

[10 MARKS]

Write your answer as either *TRUE* or *FALSE* in the answer booklet provided.

1. Missing slot covers on a computer can cause it to overheat.
2. The computer takes input in the form of 0 and 1.
3. Network interface cards are used to play sounds and music from speakers.
4. Expansion slots give flexibility to users to update and give more capabilities to their computers.
5. The C++ input stream object `cin>>` is used to read values input from the keyboard.
6. A C++ identifier has to begin with a number.
7. PROM is secondary memory.
8. A WORM allows the user to write data permanently on to the disk.
9. A Dot Matrix printer uses a combination of laser-beam & electro photographic techniques.
10. DIR command is used to see the content of a specific file.

Label the computer hardware components for 1 to 10.



SECTION D

SHORT & LONG ANSWER QUESTIONS

[40 MARKS]

1. System unit is a container that houses most of the electronic components of the computer system.
Discuss the purpose or the functions of the following components found inside a system unit. (10 marks)
 - (i) CPU
 - (ii) Memory
 - (iii) Hard Disk
 - (iv) Power Supply
 - (v) Motherboard
2. The computer system is divided into three separate units for its operation. What are they? (3 marks)
3. What are the important characteristics of computer? (2.5 marks)
4. List four categories of computer according to its processing speed? (2 marks)
5. Give four examples of expansion cards? (2 marks)
6. Discuss what it means to do a backup and why it is important? (2 marks)
7. Differentiate between system software and application software (2 marks)
8. Differentiate between the following pair of words:
 - a) Input and output device (2 marks)
 - b) Random Access memory (RAM) and Read-only memory (ROM) (2 marks)
 - c) Impact and non-impact printers (2 marks)
9. Explain what is root directory and subdirectory. (2 marks)
10. What does BIOS stand for, and state what it does? (2 marks)
11. Give names of any two ports? (2 marks)
12. What is a Peripheral Device? (2.5 marks)
13. Define soft copy and hard copy outputs. (2 marks)

SECTION E**C++ PROGRAMMING****[20 MARKS]**

1. Determine the output for the following code segment. Assume that the header `iostream` and using namespace `std` is used. (2.5 marks)

a)

```
int main()
{
    int a=8;
    int b(3);
    int c(5);
    int result;

    a = a + 3 + c;
    result = a - c;
    cout << result;
    system("PAUSE");
    return 0;
}
```

- b) Find out the coding error (syntax or logical error) in the following C++ program segment and rewrite it correctly. (2.5 marks)

```
int zz;
cout>> "Enter your age"
cin<< zz;
```

2. Write a C++ program that calculates the circumference of a circle whose radius = 10.0 and PI = 3.14159. (5 marks)
3. Write a C++ program that asks the user to enter the values for the length and the width of a rectangle. The program should then compute the perimeter and area of the rectangle and print it to the screen. (10 marks)

*****THE END*****