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REPUBLIQUE DU CAMEROUN
PAIX – TRAVAIL – PATRIE

MINISTRE DES ENSEIGNEMENTS
SECONDAIRES



REPUBLIC OF CAMEROON
PEACE – WORK – FATHERLAND

MINISTRY OF SECONDARY EDUCATION

CAMEROON ENGLISH TEACHERS ASSOCIATION MOCK	SUBJECT CODE NUMBER 595	PAPER NUMBER 2
	COMPUTER SCIENCE (CSC)	
CANDIDATE NAME: CANDIDATE NUMBER: CENTRE NUMBER:		
ORDINARY LEVEL	DATE: Tuesday , 24/ March /2020	

Time Allowed: TWO HOURS

Answer any **FIVE** questions.

All questions carry 20 marks each. For your guidance, the approximate mark for each part of a question is indicated in brackets

You are reminded of the necessity for good English and orderly presentation of your answers.

In calculations, you are advised to show all the steps in your working giving your answer at each stage

Calculators are allowed

1. (a) Define the following and state an example in each case
 - (i) softcopy output (2 marks)
 - (ii) secondary storage (2 marks)
 - (iii) Utility software (2 marks)
 - (iv) Software suits (2 marks)
 - (b) (i) what do you understand by computer crime? (2 marks)
 - (ii) State and define any two computer crimes (2 marks)
 - (iii) Give one measure used to prevent the stated crime above (2 marks)
 - (c) With regards to the machine cycle, **Fetch -Decode- Execute**, state where the following CPU components intervene;
 - (i) Control Unit
 - (ii) Arithmetic Logic Unit (3 marks)
 - (d) State the meaning of the following acronym;
 - (i) EBCDIC
 - (ii) ASCII
 - (iii) BIOS (3 marks)
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2. (a) An information system is created by a system analyst through initialization to maintenance, briefly describe two activities carried out in the following phases:
 - (i) System Initialization
 - (ii) System design
 - (iii) System maintenance (6 marks)
 - (b) You have just been employed in a company as a secretariat, you discovered that the computer in your office does not **boot**, a technician diagnoses concluded: *"the operating system is corrupt as a result, the computer cannot 'come on'. Neither application software nor some system software can be install"*. The hardware devices where almost useless in front of you.
 - (i) Define an operating system (2 marks)
 - (ii) State two functions of the operating system (2 marks)

After the technician has re-installed **only the operating system**,

 - (iii) State one hardware and one software problem you might encounter in order to produce a document you have been assigned by your manager. (2 marks)
 - (iv) Differentiate between application software and system software (2 marks)
 - (c) Briefly explain the following with respect to Data Communication stating an example in each case
 - (i) Serial data transmission (2 marks)
 - (ii) Half-duplexing (2 marks)
 - (iii) Synchronous data transmission (2 marks)
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3. (a) (i) what do you understand by digital signal (1 marks)
 - (ii) Given the Boolean expression $y = \bar{A}(A+B) + (A.B)$
Construct the logic circuits for **y** and deduce it truth table (5, 3 marks)
 - (b) (i) Define an information system (2 marks)
 - (ii) State six components of an information system (3 marks)
 - (c) Differentiate between the following:
 - (i) Multiprogramming and multiprocessing (2 marks)
 - (ii) E-commerce and E-banking (2 marks)
 - (iii) Client/server Network and Peer to Peer Network (2 marks)

4. (a) study the algorithm bellow and answer the questions that follows

1 -start

*2- Get averages from two students **A and B***

3- Get 1st term, 2nd and 3rd term averages

*4- If **AVERAGE** ≥ 18.52 , THEN*

*4.1- Print **AVERAGE** = (the sum of three terms average)*0.334*

4.2 - The student is offered a scholarship to study abroad

4.3- ELSE

*4.4- Print **AVERAGE** = (the sum of three terms average)*0.334*

4.5- The student will continue studies in the home country

5- Terminate

- (i) Define a control structure (2 marks)
- (ii) State two control structure used in the above algorithm and indicate the lines they occur (2 marks)
- (iii) Given the *averages* obtain by student **A : 18.01, 19.02 and 15.09** and by student **B: 16.97, 17.99 and 19.69**

Which of the student will be granted scholarship to study abroad? And Show the average (3 marks)

- (iv) Produce the corresponding flow chart for above algorithm (3 marks)

(b) Differentiate between the following as applied in programming

- (i) Compilers and interpreters (2 marks)
- (ii) High Level Language and Low Level Language (2 marks)
- (iii) IDE and text editor (2 marks)

(c) Technology is growing rapidly; it is gradually reducing the rate of **digital divide** in the world.

- i. What do you understand by the word "**digital divide**" (2 marks)
- ii. State and explain two negative impact of digital divide to education (2 marks)

5. Define the following terms;

- (i) Firewall (2 marks)
- (ii) Antivirus software (2 marks)
- (iii) Database administrator (2 marks)
- (iv) Repeater (2 marks)

(b) Describe the following as used in project management

- (i) Planning and design (2 marks)
- (ii) Project management (2 marks)
- (iii) Task (2 marks)

(c) Briefly State and explain any two ways in which computers can be used in the following domains

- (i) Education (2 marks)
- (ii) Health care (2 marks)
- (iii) Football organizations (2 marks)

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6. (a) A car manufacturing industry employs professionals involve in carrying out; **simulations, computer Modeling, CAD** and **web designing**. Briefly describe the functions of the following to the industry;
- (i) CAD (2 marks)
 - (ii) Computer Modeling (2 marks)
 - (iii) Simulations (2 marks)
 - (iv) Web designer (2 marks)
- (b) Briefly describe the following User interface.
- (i) Graphical user interface (2 marks)
 - (ii) Command line interface (2 marks)
 - (iii) Voice recognition interface (2 marks)
- (c) An organization has decided to put her computers on a network using a **linear topology** structure.
- (i) Define computer networking (2 marks)
 - (ii) State three hardware resources that will be needed to establish the networking environment. (3 marks)
 - (iii) Draw the structure of this topology (1 mark)
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7. (a) (i) what do you understand by computer ergonomic (2 marks)
State two health related issues associated with prolong used of computers and briefly explain one measure used to reduce this health issue. (4 marks)
- (b) What is the difference between data validation and data verification (4 marks)
- (c) A secretariat intends to completely **backup** his files before **formatting the system**. He has 19.32 GB of files and has a carton full of empty CDs.
- (i) What do you understand by the word **file backup**? (1 marks)
 - (ii) What do you understand by "**formatting the system**" (1 marks)
 - (iii) How many CDs are needed to completely backup the files (*assuming 1 CD = 700MB*) (4 marks)
- (d) What do you understand by the following method of accessing data?
- (i) Direct access (2 marks)
 - (ii) Serial access (2 marks)
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