

COMPUTER SCIENCE 2
0595

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

JUNE 2019

ORDINARY LEVEL

Subject Title	COMPUTER SCIENCE
Paper No.	2
Subject Code No.	0595

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 in your answers.

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

Calculators or Phones are NOT allowed.

Turn Over

1. (a) State any two positive impacts in each case of Computer Information System on the following areas: (2 marks)
- (i) Banking (2 marks)
 - (ii) Managing a School Library (2 marks)
 - (iii) Commerce (2 marks)
- (b) Explain what you understand by the following: (2 marks)
- (i) System Software (2 marks)
 - (ii) Operating System (2 marks)
 - (iii) Device drivers (2 marks)
 - (iv) Utility software. (2 marks)
- (c) (i) Give the difference between optical and magnetic storage devices in terms of the technology used to store data. (4 marks)
- (ii) By using diagrams only, show how the layout of the tracks and sectors on compact disc differ from those of a hard disk. (2 marks)

2. (a) State DeMorgan's Laws for a logic circuit with two inputs A and B (4 mark)
- (b) Given the logic circuit Figure 1. Write down the logic expression for the output.

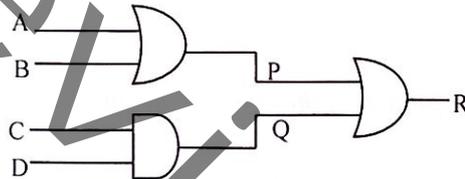


Figure 1

- (i) P in terms of inputs A and B (2 marks)
 - (ii) Q in terms of inputs C and D (2 marks)
 - (iii) R in terms of inputs A, B, C and D. (2 marks)
- (c) (i) What is ergonomics? (2 marks)
- (ii) Briefly describe any Three ways in which ergonomic design is applied in an organization. (6 marks)
- (d) Using binary arithmetic, evaluate $1000011_2 - 1110_2$ (2 marks)
3. (a) Give the difference between
- (i) Intranet and extranet. (2 marks)
 - (ii) The internet and World Wide Web (WWW) (2 marks)
 - (iii) Browser and Search engine. (2 marks)
- (b) (i) Give two advantages and two disadvantages of using social media in a school. (4 marks)
- (ii) State any two social media platforms. (2 marks)
- (c) (i) What is Computer Generation? (2 marks)
- (ii) State the main technology that characterizes the 2nd and 3rd computer generations. (2 marks)
- (d) (i) What is Green Computing? (2 marks)
- (ii) Name two ways by which it can be enhanced. (2 marks)

4. (a) Give the meaning of the following terms used in project management. (2 marks)
- (i) Predecessor task (2 marks)
 - (ii) Critical path (2 marks)
 - (iii) Slack time (2 marks)
- (b) A teacher intends to present a lecture to students in a hall using a computer application software.
- (i) State the most appropriate Application Software that can be used. Give one reason for your choice. (2 marks)
 - (ii) Name any three hardware devices that can be used alongside the computer to facilitate the teacher's lecture in the hall. (3 marks)
 - (i) Name two other Application Software that can be used to prepare the lecture. (2 marks)
- (c) (i) Give two differences between an impact printer and a non-impact printer. (2 marks)
- (ii) Give an example of each type of printer in c(i). (2 marks)
- (d) State the role of each of the following in relation to data transmission.
- (i) Receiver (1 mark)
 - (ii) Transmitter (1 mark)
 - (ii) Protocol (1 mark)
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5. (a) A Folder in a computer contains files with total size of 7 GB. In order to backup the files, a number of CDs of size 700 MB are provided.
- (i) What do you understand by file backup? (1 mark)
 - (ii) Give two reasons for file backup. (2 marks)
 - (iii) Convert 7GB to MB (3 marks)
 - (iv) How many CDs are required to backup all the files in the folder? (3 marks)
- (b) (i) Write in full the abbreviation DBMS (1 mark)
- (ii) Briefly explain the following as used in DBMS:
 - Redundancy (2 marks)
 - Consistency (2 marks)
 - Normalization (2 marks)
- (c) (i) Differentiate between data verification and data validation (2 marks)
- (ii) Briefly explain why both data verification and data validation are necessary to ensure the credibility of data in a database (2 marks)
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6. (a) The technician of a computer laboratory in a school decides to replace a Proprietary Operating system with an Open Source Operating System. He equally replaced the RAM chips with RAM of higher capacities and supplied power to each computers through a UPS.
- (i) Briefly explain the advantages of the three changes effected by the technician. (6 marks)
 - (ii) Briefly explain what you understand by Free and Open Source Software. (3 marks)
 - (iii) Write in full the abbreviation UPS to the computer system. (1 marks)
 - (iv) Give two advantage of UPS to the computer system. (2 marks)
 - (v) Suggest other two changes that can improve the functioning of the computers (2 marks)
- (b) Briefly explain the following:
- (i) Multitasking and multiprocessing. (2 marks)
 - (ii) Software upgrading and updating. (2 marks)
 - (iii) Uploading and downloading. (2 marks)

7. (a) Briefly explain what you understand by: (2 marks)
- (i) Algorithm (2 marks)
 - (ii) Pseudo code (2 marks)
 - (iii) Flow chart
- (b) Give the difference between: (2 marks)
- (i) Source code and object code. (2 marks)
 - (ii) Compiler and assembler. (2 marks)
 - (iii) Declarative and procedural programming.
- (c) (i) Briefly explain the roles of the Six (06) main components of an Information System. (6 marks)
- (ii) Describe briefly how school management can use an Information System to manage indiscipline in students. (2 marks)
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