

LICSTA MOCK 2023, ICT -AL PAPER 2

REPUBLIQUE DU CAMEROUN  
Paix – Travail – Patrie  
MINISTRE DES ENSEIGNEMENTS SECONDAIR  
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DELEGATION REGIONALE DU LITTOORALE  
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INSPECTION REGIONALE DE PEDAGOGIE



REPUBLIC OF CAMEROON  
Peace – Work - Fatherland  
MINISTRY OF SECONDARY EDUCATION  
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REGIONAL DELEGATION FOR LITTORAL  
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REGIONAL INSPECTORATE OF PEDAGOGY

LITTORAL ICT & COMPUTER SCIENCE TEACHERS

ASSOCIATION

LIICTA

GENERAL CERTIFICATE OF EDUCATION MOCK EXAMINATION

ADVANCED LEVEL

<b>SUBJECT TITLE</b>	796 – INFORMATION AND COMMUNICATION TECHNOLOGY	<b>MARCH 2023</b>
<b>PAPER NUMBER</b>	2	

Time Allowed: Two and Half Hours (2H:30M)

INSTRUCTIONS TO CANDIDATES:

Answer any **SIX** Questions.

All questions carry equal marks

1. a) Explain the following computer terms giving examples where necessary:

(6marks)

- i) Video conferencing
- ii) Stock control system
- iii) E-Commerce

b) i) Explain how the ROM serve as primary memory despite being non-volatile.

(2marks)

ii) Explain why computer storage is separated into primary storage and secondary storage.

(4marks)

c) i) What is software reuse with respect to system development?

(2marks)

ii) State one criteria used to select existing software for reuse.

(1mark)

iii) Explain two situations that may cause organizations to engage in externally developed (outsourcing) software.

(2marks)

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2) (a) i) Explain the main difference between the peer-to-peer and the client/server networks.

(3marks)

ii) Give two advantages of the client/server network.

(2marks)

b) i) What is an Information System?

(2marks)

ii) Explain the term "procedure" and "people", components of an information system.

(2mark)

iii) With respect to information system, describe GIS and expert system giving and example in each case.

(6marks)

iv) State two examples of TPS.

(2marks)

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3. a) Modern technology has made it possible for workers to do office work at the comfort of their homes. Workers use communication tools to carry out office duties from a remote location.

i) What name is given to such a technology?

(1mark)

ii) Describe three tools that will enable a worker to work remotely.

(6marks)

iii) State one advantage and one limitation of working remotely.

(2marks)

b) i) What is a file format?

(1mark)

ii) Suggest two reasons why different file formats exist.

(2marks)

iii) What is the full meaning of PDF? State one advantage of creating and using files in PDF format.

(2marks)

c) i) Explain what is meant by machine dependent.  
(2marks)

ii) Give one example of HLL. (1marks)

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4. a) i) What is an operating system?  
(2marks)

ii) Explain the role played by the operating system in the given instances:  
integrating additional hardware to a computer system and Managing RAM usage during  
processing. (4marks)

b) i) What is virtual memory? (2marks)

ii) What's the importance of the virtual memory concept?  
(2marks)

c) Explain the effect and the consequence on computer system in the absence of each of the  
following: (3marks)

i) RAM

ii) Buses

iii) Ethernet card

d) i) what is memory? (2marks)

ii) Describe the purpose of ROM in the computer system.  
(2marks)

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5. a) i) what is a database?  
(1mark)

ii) Give the difference between a flat file database and a relational database?  
(2marks)

iii) Define the database normalization?  
(2marks)

iv) Describe the three anomalies that result from the presence of redundant data on a  
database table. (3marks)

v) State two advantages of normalization. (2marks)

b) i) With respect to computer storage, define the term volatility.  
State two examples of volatile storage. (2marks)

c) 5. a) i) What is computer software?  
(1mark)

ii) Distinguish between tailor-made applications and generic applications stating an example  
of each. (4marks)

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Figure 1

- a) i) Suggest a name for figure 1 above. (1mark)
- ii) Describe a situation where figure one is useful. (3marks)
- ii) State one advantage and one disadvantage of using the technology associated with figure 1. (2marks)
- b) Distinguish between the following pairs of terms associated with data communication. (4marks)
- i) Synchronous and asynchronous transmission
- ii) Broadband and baseband transmission
- c) i) State two examples of input devices that can read data directly from source. (2marks)
- ii) For each of the following input data, state a suitable input device. (5marks)
- Test score of students recorded by teacher on a mark sheet.
  - Information recorded on a bank card.
  - A signed cheque.
  - GCE registration photographs
  - a printed picture
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7. a) Briefly describe each of the following computer related health hazards. Your description should state the cause, an effect and a method of prevention.
- i) Repetitive Strain Injuries. (3marks)
- ii) Computer Vision Syndrome (3marks)
- b) i) What is ergonomics? (1mark)
- ii) Describe two ergonomic design aspects of an office chair. (4marks)
- c) The internet has change the way so many things are being done in our society through the provision of many electronic services such as e- commerce and e- banking.
- b) i) What is a logic gate. (2marks)
- ii) Identify the logic gate with a given property as described below. (4marks)
- Output is high when any of the input is high.
  - The output is low when all the inputs are high.
  - The output is high when one of two of the inputs is high.
  - The output is high when all the inputs are low.

8. a) Below is an algorithm to find the roots of a quadratic equation  $y = ax^2 + bx + c$

1. Begin
2. Get a,b,c
3.  $d = (b*b) - 4*a*c$
4. if ( $d < 0$ )
5. print(complex roots)
6. else
7. if ( $d = 0$ )
8.  $r = -b/2*a$
9. print( Equal roots, roots are r and r)
- 10.else
11.  $r1 = (-b - \text{sqrt}(d))/2*a$
12.  $r2 = (-b + \text{sqrt}(d))/2*a$
13. print r1, r2
14. end if
15. end.

i) What is a variable? Give three examples of variables used in the algorithm above.

(4marks)

ii) What is a control structure? Give one example of control structure used in the above algorithm and the lines of instruction used by it.

(2marks)

iii) Draw a corresponding flow chart for the above algorithm

(5marks)

b) Describe the following terms.

(4marks)

i) web blog

ii) social media.

c) State two methods that can be used to secure an intranet from intruders.

(2marks)

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