

REGISTRATION CENTRE NUMBER		CENTRE NAME		FOLD < HERE
CANDIDATE'S FULL NAMES GCE REVISION				
CANDIDATE IDENTIFICATION NUMBER	SUBJECT CODE 0590	PAPER NUMBER 2		
FOR OFFICIAL USE ONLY				
CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD ORDINARY LEVEL EXAMINATION				
SUBJECT TITLE LOGIC		SUBJECT CODE 0590	PAPER NUMBER 2	
http://www.gcerevision.com		EXAMINATION DATE: JUNE 2020		

Two and a half hours

Answer FIVE questions, taking ALL the THREE Questions from Section A and ANY TWO from Section B. ONLY THE FIRST FIVE QUESTIONS ANSWERED WILL BE MARKED.

All the questions carry 20 marks. 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 solving, you are advised to show all the steps in your working, giving your answer at each stage.

FOR EXAMINER'S USE ONLY	SCORE
Name of Examiner	
Signature of Examiner:	
Date:	

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SECTION A: STRUCTURAL

1 (a) Define each of the following:

(i) A Stipulative Definition:

(ii) An Argument:

(iii) Judging:

(iv) What makes Logic similar to Science?

(4 x 1 marks)

(b) (i) Distinguish between a "Distributed and an Undistributed Term" in a Categorical Proposition:

(3 marks)

(ii) Define a Hypothetical Proposition:

(1 mark)

(c) (i) State the rules of Conversion:

(ii) What makes Contrariety different from Subcontrariety?

(2 x 2 marks)

(4 x 1 marks)

(b) (i) Distinguish between the Subject and the Predicate Term

(3 marks)

(ii) Define a Problematic Modal Proposition:

(1 mark)

(c) Explain the following:

(i) Minor premise:

(ii) Subalternation:

(2 x 2 marks)

(d) Define the following:

(i) Fallacy of Accent:

(ii) Pure Hypothetical Syllogism:

(2 x 2 marks)

(e) (i) State the rule of Implication:

(ii) State two reasons for the study of Symbolic Logic:

(2x marks)

3 (a) Distinguish between the following:

(i) Induction and Analogy

(ii) Directory function of Language and Informative function of Language:

(2 x 2marks)

(b) (i) Define a Disjunctive Proposition:

(ii) List the types of a Categorical Proposition:

(2 x 2marks)

(c) (i) Define Opposition:

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(ii) Distinguish between the Invertend and the Inverse:

(2 x 2 marks)

(d) (i) State the rules of the Hypothetical Syllogism:

(ii) Differentiate between an Enthymeme and a Sorites:

(2 x 2marks)

(e) (i) What is a Compound Statement?

(ii) State any two uses of the Truth-Table:

(2 x 2 marks)

SECTION B: PROBLEM SOLVING.

4 Read the passage and answer the questions that follow:

The Empowerment of the women today is a major concern for the society. We see women of high level esteem having large followers, in the form of fans. A good example is that of Ellen Johnson who is a rich and highly respected female President. And many Female youths look up to her as their role model. A good number of youths love politics and academics because they dream of making a career too as Female Presidents. Hence, a president is either a rich person or a star. "So, if politics can offer one a good reputation and if it can make one to be rich, then going to school is a call for concern" says a youth. But what is politics? Professor Bills sees it as a game of interest. Therefore, people of all gender should be involved.

Questions:

(a) Identify the following from the passage:

- (i) Common Term.
- (ii) General Term.
- (iii) A type of Definition.
- (iv) Criticise the Definition in a(iii).

(4 x 1marks)

(6)

- (i) Express "A good number of youths love Politics" into its Optimum Logical Form.
- (ii) Identify a Disjunctive Proposition from the passage and translate it into a Hypothetical Proposition. (2 x 2 marks)
- (iii) Determine the validity of this Syllogism using the Venn Diagram technique:

No men are immortals.

Some gods are immortals.

Therefore, some gods are men.

- (iv) Give the Contradictory of the Major Premise in **b(iii)** above. (2 x 2 marks)

- (c) (i) Derive a Conclusion from the Argument below to make it an invalid Modus Tollendo Ponens:
"A President is either a rich person or a star.
A President is not a rich person".

- (ii) Given the Major and Minor Premises below, construct the conclusion to make it a Simple Constructive Delimma:

If politics can offer one such a good reputation, and if it can make one to be rich, then there is no need going to school.

Either politics can offer one such a good reputation or it can make one to be rich.

(2 x 2 marks)

- (d) (i) Symbolise the Major Premise of **c (i)** above using the variables "p, q" and "r" respectively.

- (ii) Represent the statement in **d (i)** above on a Truth Table. (2 x 2 marks)

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- (a) (i) Criticise this Definition "A Christian is a non-Muslim":
(ii) Give an example of a Cogent Argument (2 x 2 marks)

- (b) (i) Translate the statement "Only intelligent students succeed" into its Optimum Logical Form.
(ii) State the Distribution of Terms in **b(i)** above. (2 x 2 marks)

- (c) (i) Give the Converse of the Proposition in **b(i)** above:
(ii) State the Mood and Figure of the Syllogistic Argument below:
"Some idiots are fools
All idiots are stupid persons.
Therefore, some stupid persons are fools". (2 x 2 marks)

- (d) Identify the Fallacy most clearly committed in this statement:
(i) "When will you stop gossiping?"
(ii) State the order of the Enthymeme in the Argument below:
"No Historians are researchers and some intellectuals are Historians" (2 x 2 marks)

- (e) (i) Construct the Truth Table for this compound statement: $(p \equiv q) \supset p$

- (ii) Given the variables: "p" and "q" are False and r is True, determine the truth value of $\sim p. (q \vee r)$
(2 x 2 marks)

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- 6.
- (a) (i) Given a class of Ordinary Level subjects to be "logic, History, Geography, French, Biology etc", identify the Totum Divisum and the Membra Dividentia. (2 x 2 marks)
- (ii) Give an example of an Analogical Reasoning. (2 x 2 marks)
- (b) Using the terms "Fathers", as the Subject Term, "child bearer" as the Predicate Term, construct:
- (i) A proposition whose subject and predicate term are Distributed. (2 x 2 marks)
- (ii) Represent b (i) above on a Venn diagram (2 x 2 marks)
- (c) (i) Give the Obverse of b(i) above. (2 x 2 marks)
- (ii) Give the Contradictory of the converse of b (i) above. (2 x 2 marks)
- (d) Given the statement, "if i go to church then i will pray as a Major Premise"
- (i) Construct a valid Modus Ponens: (2 x 2 marks)
- (ii) Identify the Fallacy most clearly committed in this Argument: "My logic teacher is an intelligent person. Hence teachers are intelligent people". (2 x 2 marks)
- (e) Given that the variable "P is true, Q and R are false, determine the truth value of the following:
- (i) $(P \equiv \sim R) \supset Q$ (2 x 2 marks)
- (ii) Represent e (i) above on the Truth Table. (2 x 2 marks)