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0505 – ACCOUNTING

I – INTRODUCTION

The Ordinary Level Accounting is a dual culturally orientated syllabus comprising the **OHADA Accounting System Approach** and the **IAS Accounting System Approach**. The subject **0505 – Accounting** is a two paper examination at the Ordinary Level. The purpose of the examination is to place candidates in a rank order with mark distribution ranging from **0** to **100** so as to reflect candidates' depth of understanding and application of Accounting Principles and Applications.

Paper One (1) is made up of fifty (50) Multiple Choice Questions (MCQs) covering the whole harmonized syllabus and candidates are expected to answer all the questions. The duration for this paper is 1 hour 30 minutes, representing a weighting of 40% of the marks for the whole paper. On the other hand, Paper Two (2) comprises eight (08) questions drawn from the whole syllabus. Questions in this paper are grouped under Section A and Section B. Section A consists of five (05) questions based on the **OHADA Approach** which candidates are required to answer any three (03) questions of their choice. Section B consist of three (03) questions based on **IAS/IFRS Approach** of which candidates are required to answer any two (02) questions of their choice. The duration for Paper 2 is three (3) hours and the weighting of the paper is **60%** of the marks for the whole subject. In this paper, each question carries 20 marks.

In the 2020 session of the GCE examination about 350 candidates actually wrote the 0505 Accounting Examination and in the 2021 session, the number of candidates for the same subject witnessed a decrease to about 293 candidates representing a decrease of about 16.29%. This was due to the introduction of the TVE examinations and the non-introduction of Accounting in most grammar schools.

II – OVERALL PRESENTATION OF THE EXAMINATION

In both Paper One (1) and Paper Two (2) during the 2021 examinations session, the questions were appropriate for the Ordinary Level candidates. The rubrics were clear and understandable. Questions were equally within the reach of the candidates and could be readily attempted. As a matter of fact, the following Test Blueprint gives a summary of the content of Paper Two(2) questions;

QUESTION NUMBER	SYLLABUS TOPIC (s)	AIMS			OBJECTIVES			DIFFICULTY LEVEL		
		1	2	3	Knowledge	Comprehension	Application	*	**	***
1	End of year adjustments (Bank Reconciliation Statement)	•	•		•	•	•		•	
2	Payroll Accounting	•	•		•	•	•		•	
3	Trading transactions (Purchases and Sales)	•	•	•	•	•			•	
4	Basic Accounting Techniques	•	•		•	•			•	
5	End of year adjustments (Inventory and adjustments on fixed assets)	•	•	•	•	•				•
6	The Double Entry system	•	•		•	•	•		•	

7	Introduction to company accounts (The Financial Position of a business)	•	•	•	•	•	•			•
8	Accounting for Non-Profit organisations		•		•	•			•	

The questions for the 2021 examination session in Paper 2 were spread to cover the entire syllabus. However, it was noticed that some candidates exhibited an attitude of speculative syllabus coverage of about 60%. Candidates respected the instructions of the paper which required that candidates should answer any three (03) questions of their choice from Section **A** and any two (02) questions from Section **B**. Thus no candidate was penalised for disobeying the instructions.

III – GENERAL PERFORMANCE OF CANDIDATES

In spite of the fact that the current syllabus for 0505 – Accounting has been in use since 2012 session, a majority of the candidates in the 2021 Session still performed poorly in paper two (2). That is to say, the performance was below average for the following reasons:

- It would appear there was no thorough mastery of the harmonized syllabus by candidates during the preparatory phase for the 2021 examination, probably because the syllabus has a bi-cultural nature. This phenomenon has been noticed for over the years;
- Non mastery of the various techniques and principles involved in the treatment of certain transactions in Accounting. For example, in preparing the bank reconciliation statements, some candidates transposed the entries in the various accounts i.e. the entries in the bank account kept by the business were entered in the bank statement, equally they could not identify and select transactions to prepare the appropriate subsidiary books, they could not also differentiate between the ledger and the journal, preparing simple financial statements seem a difficult task;
- Many candidates demonstrated a lack of adequate preparation due to no devotion of sufficient time for personal studies;
- Also, poor quality of syllabus coverage was highlighted as cause for concern.
- There was equally some evidence that students did not have qualified accounting teachers who master the two systems of accounting to teach them.

IV – QUESTION BY QUESTION ANALYSIS

IV.1 – ANALYSIS OF CANDIDATES PERFORMANCE AND APPROACH TO QUESTIONS IN PAPER ONE

Since Paper one (1) comprises Multiple Choice Questions, a comprehensive analysis of the candidates' performance will be made available in a separate report when necessary.

IV.2 – ANALYSIS OF CANDIDATES PERFORMANCE AND APPROACH TO QUESTIONS IN PAPER TWO

The eight (08) problem solving- questions in paper two (2) covered a wide range of the current syllabus in use. The analysis of candidates' performance and their approach to questions varied from one question to another.

A) Popularity of Questions

From about 267 scripts, the popularity of questions in Paper 2 could be rated as follows.

RANKING	QUESTION NUMBER	NUMBER OF CANDIDATES WHO ATTEMPTED EACH QUESTION (OUT OF about 3,944)	RATE	TOPIC
1 st	Q3	245	91.76%	Trading transactions (Purchases and Sales)
2 nd	Q6	200	74.91%	The Double Entry system
3 rd	Q2	172	64.42%	Payroll Accounting
4 th	Q1	132	49.44%	End of year adjustments (Bank Reconciliation Statement)
5 th	Q4	119	44.57%	Basic Accounting Techniques
6 th	Q7	117	43.82%	Introduction to company accounts (The Financial Position of a business)
7 th	Q8	45	16.84%	Accounting for Non-Profit organisations
8 th	Q5	35	13.11%	End of year adjustments (Inventory and adjustments on fixed assets)

B) Candidates' Performance per Question

In paper Two (2), the performance of candidates was noted as follows:

RANKING	QUESTION NUMBER	RATIO OF PASSESS	SUCCESS RATE	No. Of Zero scores	% zero scores
1 ST	Q3	33 out of 245	13.47%	11	4.49
2 nd	Q6	24 out of 200	12%	105	52.5
3 rd	Q2	31 out of 172	18.02%	11	06.4
4 th	Q1	30 out of 132	22.73%	23	17.42

5 th	Q4	5 out of 119	04.20%	32	26.89
6 th	Q7	35 out of 117	29.91%	19	16.24
7 th	Q8	5 out of 45	11.11%	22	48.89
8 th	Q5	0 out of 35	00%	18	51.43

Relatively, candidates in Paper Two (2) for the 2021 Session; performed averagely poorer as in the 2020 examination session. Candidates performed very poorly in all the questions. Only two candidates (candidates with codes A465586 and A497603) scored 20/20 in question 1; two (candidates with codes A013563 and A684274) in question 2 and one (candidate with code A497603) in question 7. Unfortunately, more 50% of candidates who attempted questions 5 and 6 obtained zero scores in the questions.

A critical look at the table displaying the popularity of questions and the table of candidates' performance per question portrays that more than half of the number of the candidates attempted questions 3, 6 and 2 and less than 18% of these candidates had a pass mark. Most candidates avoided questions 8 and 5 recording the worst performances in questions 5, 4, 8 and 12 respectively. However, questions seven (7) recorded the best performance with about 29.91% success rate.

The table that follows illuminates the strength and weakness of each question in paper two (2) as well as the difficulties expressed by candidates' responses:

QUESTION NUMBER	SYLLABUS TOPIC	COMMENT
1	End of Year Adjustments (Bank Reconciliation Statements)	This was the fourth popular question on the paper. The question was structured to test candidates' knowledge on the preparation of the bank reconciliation statement and journalising of entries from same. About one hundred and thirty-two (132) candidates attempted this question and thirty (30) candidates scored a pass mark. In this question, the highest score recorded by about 02 candidates was 20 on 20 and 23 (17.42%) candidates scored a zero. Examiners noticed that averagely candidates had a mastery of the topic though some (43) candidates still scored a zero on the question. About 97 (73%) candidates who attempted the question failed scoring less than 10 on 20 marks on the question. Given the importance of this topic, teachers and future candidates should lay a lot of emphasis on it. Majority of candidates demonstrate lack of coverage or very poor coverage of this topic.
2	Payroll Accounting	This was the third most attempted question testing candidates on knowledge and application. It was testing candidates on the

		<p>calculation of employees pay, knowledge on overtime calculation, gross pay and net pay. More than 50% of candidates attempted this question and 02 (two) candidates scored 20 on 20 on the question recorded poor performance in terms of the other questions. 11 (Eleven) candidates scored zero on this question.</p> <p>Most students seem not have covered this topic before sitting in for the examination which is a main topic in the examination syllabus. They do not master especially the rates of overtime pay.</p>
3	Trading Transactions (Purchases and Sales)	<p>This question was to test candidates' knowledge and application on the completion of invoices, calculation of deductions including VAT on invoices and journalising of same. In terms of performance, only 33 out of 245 candidates who attempted the question scored a pass mark. Candidates were required to prepare an invoice by filling an appendix, calculate deductions to determine commercial net, financial net, VAT and the net pay. Candidates recorded poor performance in this question scoring only about 13.47 % and one (1) candidate recorded the highest score of 15 on 20 on this question. Eleven (11) candidates record zero on 20 on the question.</p> <p>The candidates' attitudes and performance in this question indicates speculative learning.</p>
4	Basic Accounting Techniques and Accounting Practice under the OHADA Accounting System	<p>This question was intended to test candidates' knowledge on the Balance Sheet equation, the journal, double entry accounting and balancing of accounts. The questioned require candidates to calculate bank balance from an extracted list of assets and liabilities, journalised some given daily transactions and prepare a bank account to explain the significance of the balance.</p> <p>Though about 119 candidates attempted the question, only 5 had a pass mark on it giving a pass percentage of only 04.2%. In terms of candidates' performance, this question occupied the fifth position. This was the fifth popular question. A good number of the candidates did not understand the demands of the question and ended up failing or not even attempting the question. For those who attempted the question, a majority of them prepared the journal without calculating VAT, with wrong codes and wrong principles.</p> <p>The highest score by a candidate on this question was 13 on 20 and 32 candidates scored zero.</p> <p>From the answers presented by the candidates, one could be tempted to say that this topic was not properly treated in most schools whereas; the topic has regularly been tested at the</p>

		Ordinary Level 0505 – Accounting.
5	End of year adjustments (Inventory and adjustments on fixed assets)	<p>This question was the least attempted just like in the 2020 examination session recording the worst performance in relation to other questions. This question tests candidates on knowledge and application on the disposal of fixed assets, calculation of depreciation rate, accumulated depreciation and amount on fixed assets. Out of the 35 candidates who attempted this question none scored a pass mark. The highest score on the question was 05 on 20 and 18 (51.43%) scored zero mark.</p> <p>Candidates did not understand the topic as they displayed poor knowledge and understanding in calculation of depreciation rates, disposal, accumulated depreciation and methods.</p>
6	The Double Entry system	<p>This question tested the knowledge, and application on the double entry system which is the corner stone of accounting practice. Candidates were given a list of transactions to prepare the ledger from them. Most candidates surprisingly could not differentiate between the ledger and the journal and further to instead journalise the transactions. Even some of those who attempted preparing the accounts failed to include description of the accounts and equally demonstrated a lack of mastery of the basic double entry principle.</p> <p>The question was the second popular question attracting 200 candidates out of the 267 on took the examination. Out of the 200 who attempted the question only 24 (12%) scored a pass mark above 10, the highest recorded score being 17.5 on 20 by one (1) candidate. 105 (52.5%) candidates scored a zero on this question.</p> <p>This shows that teachers and students alike have not taken the subject seriously or speculative teacher is rampant in schools.</p>
7	Introduction to company accounts (The Financial Position of a business)	<p>This question tested candidates' knowledge and application on the introduction to company accounts. Only the statement of financial position (balance sheet) section was required to be prepared at the end of the given period. Out of 117 candidates who attempted this question only 35 scored a passed mark on with only 1 (one) candidate recording 20 on 20 and 19 zero scores recorded.</p> <p>The question was a straight forward question as observed by examiners. Remedial measures need to be exploited by both teachers and learners, given the importance this topic holds in the domain of Accounting.</p>
8	Accounting for Non-Profit organisations	<p>This question tested knowledge and application on accounting for non-profit making organisations.</p> <p>Candidates where required to prepare an adjustment account for subscriptions and prepare an income and expenditures</p>

		<p>account for a given period. Despite the fact that this was a straight forward question, it was the second most avoided question with only 45 out of the 267 candidates who sat for the examination attempting the question.</p> <p>Out of the 45 candidates who attempted the question only 05 candidates scored a pass mark of above 10 on 20. The highest recorded score on this question was 12 on 20 and 22 (48.89%) candidates scored a zero.</p> <p>There was enough proof that this not is not been covered which a main topic on the published examination syllabus for 0505 Accounting.</p>
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V - RECOMMENDATIONS AND SUGGESTIONS

Mindful of the fact that teachers are still struggling to adopt a Competence –Based teaching Approach for this Paper, candidates need to be adequately trained before sitting for the paper 0505- Accounting at the Ordinary level GCE examination and that other Stakeholders expect to have well-trained and competent accounting staff, the following recommendations and suggestions should be given keen attention:

V.1 - RECOMMENDATIONS AND SUGGESTIONS TO STUDENTS

For performance to be ameliorated in the paper 0505 - Accounting, the following points should be taken into consideration;

- Students who aspire to be Accountants should be interested in General Mathematics, Business Mathematics, Commerce and other Business related subjects;
- Students should be psychologically ready and allocate enough time for the mastery of Accounting principles, Accounting concepts, Accounting terminologies, Calculations, journal entries and others;
- Students should endeavour to buy Text Books in Accounting and master the basic accounting principles.
- Students should avoid speculative learning and resort on regular and repetitive solving of exercises in past G C E examination question papers.
- They should work with the published examination syllabus from the Cameroon GCE board.

V.2 - RECOMMENDATIONS AND SUGGESTIONS TO TEACHERS

In order to ensure that the performance of students be ameliorated;

- Teachers should make sure that students are sufficiently taught Accounting principles, concepts, and terminologies;
- Teachers should make sure that students do a reasonable number of practical exercises on each topic of the syllabus;
- Teachers should make sure they do not only have a copy of the examination syllabus but it should be covered before students register and sit in for the GCE examinations;
- Teachers should assess the students regularly;
- They should avoid working on speculative methods;
- They should avoid rushing over topics;

- Teachers should try as much as possible to arouse the interest of learners by providing simplified explanations on each topic;
- Teachers should attend and participate actively in seminars.
- Teachers should be grounded on accounting principles and their application especially on International Financial Reporting Standards given the introduction of the SYSCOHADA.
- They should avoid discriminating between different accounting systems and be grounded on conceptual framework in accounting, understanding that all accounting systems operate under the same principles.

V.3 - RECOMMENDATIONS AND SUGGESTIONS TO OTHER STAKEHOLDERS

- The Administration of schools should provide enough periods for the teaching of Accounting;
- They should provide enough funding for Pedagogic Seminars;
- The Administration of schools should scrupulously follow-up the coverage of Syllabuses;
- They should ensure that this Report be read to students.
- They should equip their libraries with useful and standard text books in accounting and encourage students and teachers to own and make use of such text books.
- School administrations should encourage students to take examination of the 0505 Accounting especially in grammar schools.

V.4 - RECOMMENDATIONS AND SUGGESTIONS TO THE GCE BOARD

- The GCE BOARD should ensure that this Report is made available to all schools;
- The GCE BOARD should occasionally support seminars when the means are available;
- The board should encourage the education authorities to introduce a series at the advance level which includes accounting and for accounting teachers to be posted to government secondary schools.
- Copies of the most recent examination syllabus in 0505 Accounting should be sent to schools.

VI - CONCLUSION

The fact that most candidates were unable to select, organize, interpret and accurately use Accounting information, it is necessary that all schools offering the subject 0505 – Accounting should be provided with a copy of this Report so that teachers and future candidates can get in touch with the observations made by Examiners. Also, schools should accept to encourage the teachers to have a mastery of both the OHADA and the IAS/IFRS approaches.

Despite the poor performances recorded by the candidates in this examination, the examination was of standard and within the reach of an average student. Students and teachers have to sit up especially those concern with 0505 accounting examination.

0510 BIOLOGY

Introduction

The June 2021 Ordinary Level Biology Examination was of the same strength as in the previous years. The examination covered the whole syllabus, the table of specification was respected and all the rubrics were clear. The questions were clear and within the reach of the average candidates.

Paper 1

It is made up of 50 compulsory Multiple Choice Questions (MCQs) covering the whole syllabus. The paper is divided into six sections comprising the following: **Section 1:** 7 simple direct questions, **Section 2:** 13 questions relating to biological diagrams, **Section 3:** 5 questions with multiple responses, **Section 4:** 5 questions on assertion and reasoning, **Section 5:** 10 questions relating to biological terms and **Section 6:** 10 questions relating to biological situations and experiments. All questions were within the reach of the candidates who prepared for the examination. All the sections of the syllabus were covered. Candidates are called upon to always respect all instructions in this paper. Worthy of note is the fact that this paper is marked electronically.

Paper 2

This paper is made up of **Five Compulsory** essay-type questions covering the three sections of the syllabus, respecting their various weightings vis a vis knowledge, comprehension and application. The questions were designed to give objectivity and fairness in the evaluation of the candidates thus eradicating choice of questions. All questions were within the reach of the candidates who prepared for the examination.

PERFORMANCE PER QUESTION

Question No.	Q1	Q2	Q3	Q4	Q5
Av.	6.30	4.32	7.71	2.89	7.55

All Questions were below the average pass mark of **10/20**.

In order of merit

Q 3 came first with **7.71/20**,

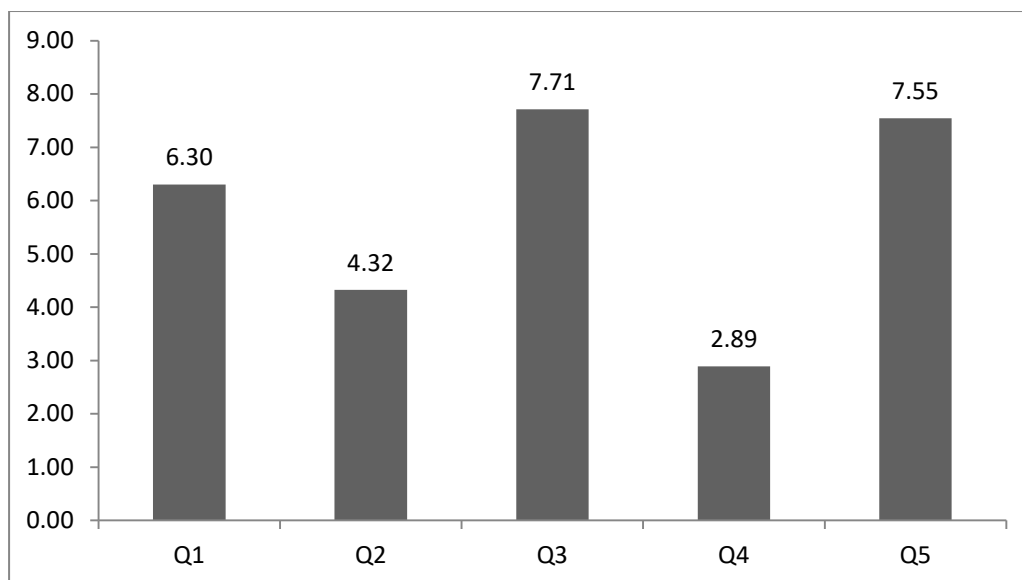
Q 5 with **7.55/20**

Q 1 came third with **6.30/20**.

Q2 came fourth with **4.32/20**

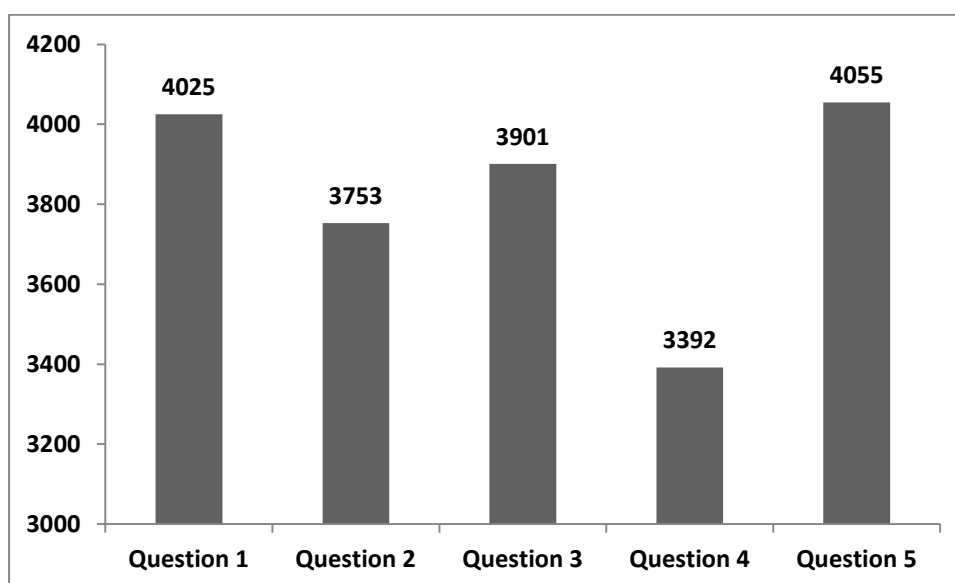
And the worst answered question was (**Q4**) having an average mark of **2.89/20**.

Question performance is ranked as follows; **3, 5, 1, 2** and **4**.



QUESTION POPULARITY

	Question 1	Question 2	Question 3	Question 4	Question 5
Candidates	4025	3753	3901	3392	4055



In decreasing order, we have 5, 1, 3, 2 and 4.

- The most answered question was question **5** with 4055 attempts out of 4320 and with an average score of **7.5/20** while the least answered question was question **4** with **3392** attempts out of 4320 with an average score of **2.9**. Notwithstanding, it is worthy to note that a candidate scored 19 on 20 in **Q4** the most dreaded. By induction the blame goes to teachers for not treating Biotechnology and genetic engineering. Some candidates acknowledged by writing not being taught this topic in their scripts.

Although question 5 was the most answered, it did not have the best score. Question 3 did with an average of 7.7/20.

Question popularity and average score per question were as follows.

	Q1	Q2	Q3	Q4	Q5
Q. POP.	4025	3753	3901	3392	4055
	2nd	4th	3rd	5th	1st
Q.PER.	6.3	4.3	7.7	2.9	7.5
	3rd	4th	1st	5th	2nd

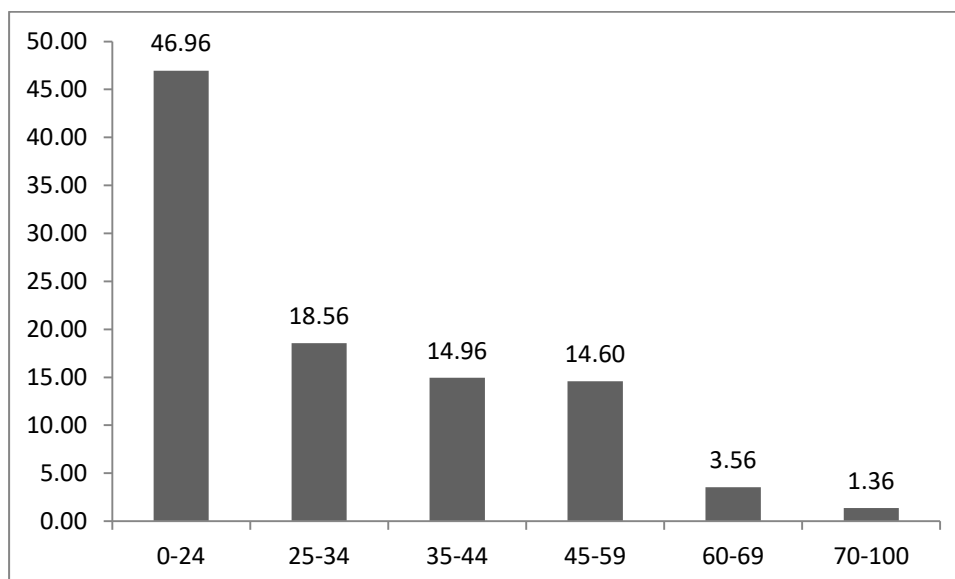
The most popular questions in decreasing order were **Q5, Q1, Q3, Q2** and **Q4**.

According to performance we have Q3, Q5, Q1, Q2 and Q4.

The performance for Question 3 and 5 were 7.7 and 7.5 which are below average. Thus, if the candidates performed better in these two questions, the results would have been good.

GENERAL PERFORMANCE

The paper as a whole scored **28.8%** as against **37.8 %** for last year showing a drop of **9.0%** The bulk of the candidates (65.52%) fell between the **0-34%** range, far above this range of 2020 (52.1%). The distribution of marks does not follow the expected Gaussian distribution that would have had the bulk of the candidates in the middle range, that is, in the 35-59 range (29.56%). The top tiers i.e. 60 and above had 4.92 % per the sample size. i.e. 1764 out of 35845. 6997 candidates had a score of 45 and above making a percentage pass of 19.52% based on the sample considered.



	0-24	25-34	35-44	45-59	60-69	70-100
Candidates	16832	6654	5361	5233	1276	489
% of candidates	47.0	18.6	15.0	14.60	3.56	1.36

Based on the study of 35845 candidates sampled, the following were observed: number of candidates in the 0 -24 range is 16832 which shows a poor performance. The percentage of candidates with marks above 70% has reduced to 1.36% against 2 % of 2020. There is a decrease in the Average score to 28.8as against 37.8% showing that the candidates have performed poorer than in 2020...A decrease of 9%.

Weaknesses

The following weaknesses were observed from candidates

- Lack of in depth knowledge of the subject matter.
- Poor mastery of English language.
- Inability of some candidates to answer essay-type questions properly, for example describing biological experiments, biological processes like beer making.
- Wrong spellings and wrong use of biological terms such as:
 - Prostrate for Prostate.
 - Epidermic for Epidermis
 - Felling for Fehling's solution.
 - Insection for Insertion
 - Viginia/Vigina for Vagina
 - Ultravioletfor Ultraviolet
 - Stickma for Stigma
 - Polling for Pollen
 - Clothing for Clotting.
 - Epidimy for Epididymis
 - Melanie for Melanin
 - Abbreviations/shorthand like é for the; rxn for reaction; wc for which; fx for following and much more.
 - Even words found on the question paper were wrongly spelt in the script of the candidates,
- Contributions from examiners during our end of marking workshop revealed that due to the influx of students into urban Centre's, unqualified teachers with little or no knowledge of the subject matter are recruited by some proprietors.

Recommendations

- We noticed that many of our candidates could not finish answering the 5 questions within the 2hour time frame. With five compulsory questions, it is our appeal that candidates be given at least thirty (30) minutes per question, making the total time allocation for Paper 2 to be 2hours 30 minutes.
- We encourage teachers to effectively cover the syllabus on time and work done in the lower classes should be revised in Form 5.
- Teachers should avoid using students to dictate notes to other students to avoid wrong spellings, omissions and wrong knowledge.
- Evaluation in schools should follow the GCE pattern, involving both MCQ and essay-type questions.
- Teachers are encouraged to drill students on the ability to answer essay-type questions.
- The table of specifications in the syllabus must be respected during question setting even in classroom examinations.
- Simple demonstrations of biological experiments should be carried out with the students such as food tests, osmosis for proper mastery of the concept etc.
- Teachers should encourage parents during PTA meetings to buy textbooks, workbooks, notebooks and other didactic materials for their children.
- Teachers are encouraged to be involved in Departmental meetings, Subject Association, attend Seminars/Workshops. During such meetings, difficulties can be addressed and subject reports discussed with emphasis on the recommendations.
- Younger teachers in the field should work closely with older teachers in order to gain from their experiences.
- Teachers are encouraged to drill their students on the spelling of biological words as well as the proper drawing of well-labelled biological diagrams/ annotated biogeochemical cycles.
- Students should have basic skills in mathematics to enable them interpret data.
- Lastly, candidates should have a good mastery of the English Language since this would permit proper expression of biological facts.

CONCLUSION

- The paper was balanced, taking into consideration all the different aspects of the Syllabus.
- Candidates who prepared for the examination performed better as could be seen with the maximum scores recorded.
- The general performance for P2 in 2021 is projected at (28.8%) as against 37.8% for 2020 indicating a drop by 9%. The performance for this paper is not encouraging as expected.

0515 CHEMISTRY

1. INTRODUCTION:

The structure and format of the examination was the same as that of 2020. Paper 1 was composed of 50 MCQs. Paper 2 was made up of three (3) sections: **A**, **B** and **C**. Section **A** had **5** questions and candidates were expected to answer all the five but will be graded on the best four. Section **B**, **Alternative to Practical**, was composed of **2** compulsory questions, testing purely experimental Chemistry. Section **C** had **3** questions for candidates to answer any **2**. To ensure that they make maximum use of time, candidates were instructed to answer only **TWO** questions out of three.

This report will be based mostly on paper 2. Paper1 was scored electronically and information on performance was not available at the time of reporting.

2. PAPER BY PAPER ANALYSIS

2.1 PAPER 1 ANALYSIS

Paper 1 was of about the same strength as that of 2020. It was made up of 50 MCQs. A test blue print ex-rayed the following:

The 50 MCQ test items were drawn from the entire evaluation syllabus

- Each of the 6 activities spelled out in the syllabus was proportionately tested
- The test items covered all four aims of the evaluation syllabus
- The test items covered the four assessment objectives: knowledge (28 %), comprehension (40%), application (21%) and analysis (11%).

Based on the TOS, one can conclude that candidates with just basic knowledge of Chemistry could hardly make a pass in this paper.

2.2 PAPER 2 ANALYSIS

Paper 2 was slightly more challenging than that of 2020.

The questions were testing knowledge, comprehension, application and analysis of concepts and principles in Chemistry. The paper covered generally 95% of the evaluation syllabus.

The following table is a synopsis of paper 2.

Content: Topics on the syllabus	Process dimension (Assessment Objectives)				Question Difficulty level
	Knowledge (A)	Comprehension((B)	Application (C)	Analysis (D)	
1.4 (c),(g), 1.5.2 (a), 1.3(g)	--	Q1(b),(d), (e)	Q1 (a), (c)	--	**
7.1.4(a) (b) 7.1.3(b) 7.1.2(a)	Q2(a),(e), (f)	Q2(b), (c), (d)	--	--	*

11 (a) (b) (e) 9(a) (c) 14.1(a)	Q3(a)(i)	Q3,(a)(iii), (b)	Q3(a)(ii)	--	**
13.1(a) 13.2(e) 13.2(a) (e) 13.5(b)	Q4(a),(d)ii	Q4(b),(c) , (d)i, (e)	--	--	**
6(a) (d) (h) 14.6.2(a) (c)	Q5(a),(d), (e)	Q5(c)	Q5 (b)	--	**
15.5(a) (c) (d) 15.1(b) (c)	Q6(a),(b)i	Q6(a),(b) i, (b)iii	Q6(b)ii, (c), (d)	--	***
15.3(a) (b) 15.1(a) 15.2(a)	--	Q7(f)	Q7(e)	Q7(a),(b),(c),(d)	***
3.2(a) (b) (c)	Q8,(a	Q8,(a)	--	--	**
13.5(e) (f)	Q9(a),(b)	Q9(a),(b)	--	--	**
10(a) 12(f) 13.5(c)	Q10,(b)(c)(d)	Q10,(b)(c)(d)	Q10,(b)(c)(d)	Q10,(b)(c)(d)	***
TOTAL	25%	40%	26%	9%	100%

Table of specification (TOS) for paper 2

General observations:

- A majority of the questions required an understanding and application of concepts and principles in Chemistry.
- Basic knowledge alone was insufficient for a candidate to score a pass grade.

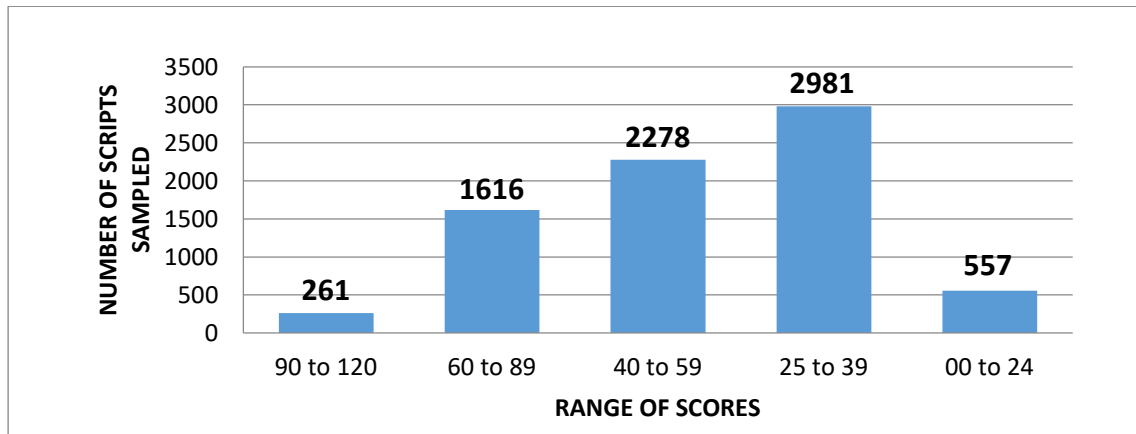
SAMPLE ANALYSIS OF PERFORMANCE IN PAPER TWO

NUMBER OF SCRIPTS SAMPLED = 7693 about (20 % of total script count)

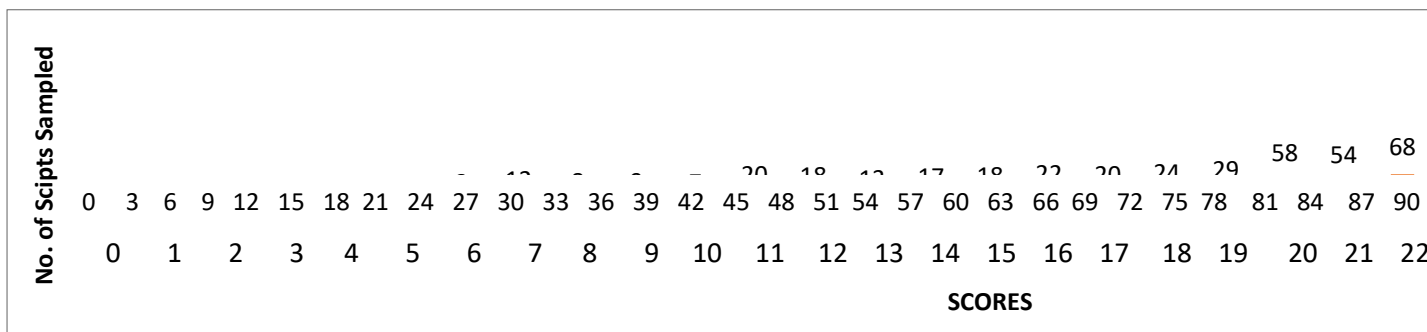
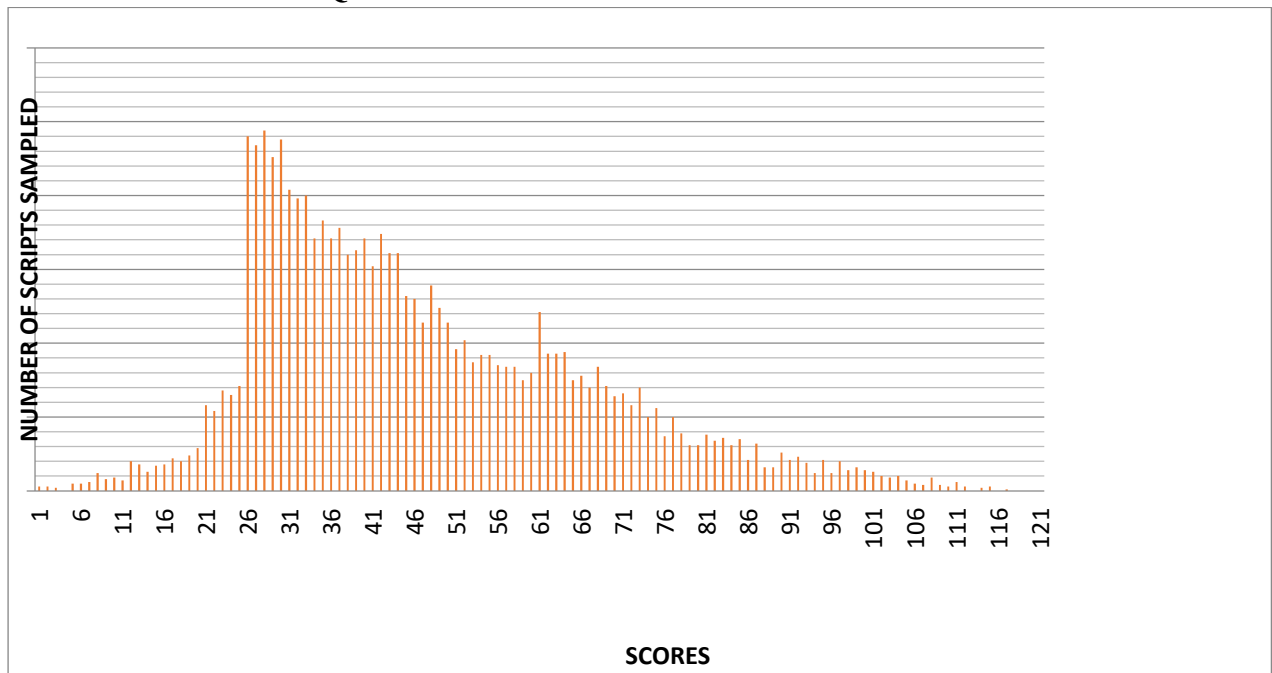
SUMMARY OF FREQUENCY OF NUMBER OF SCRIPTS SAMPLED PER GRADE BOUNDARIES

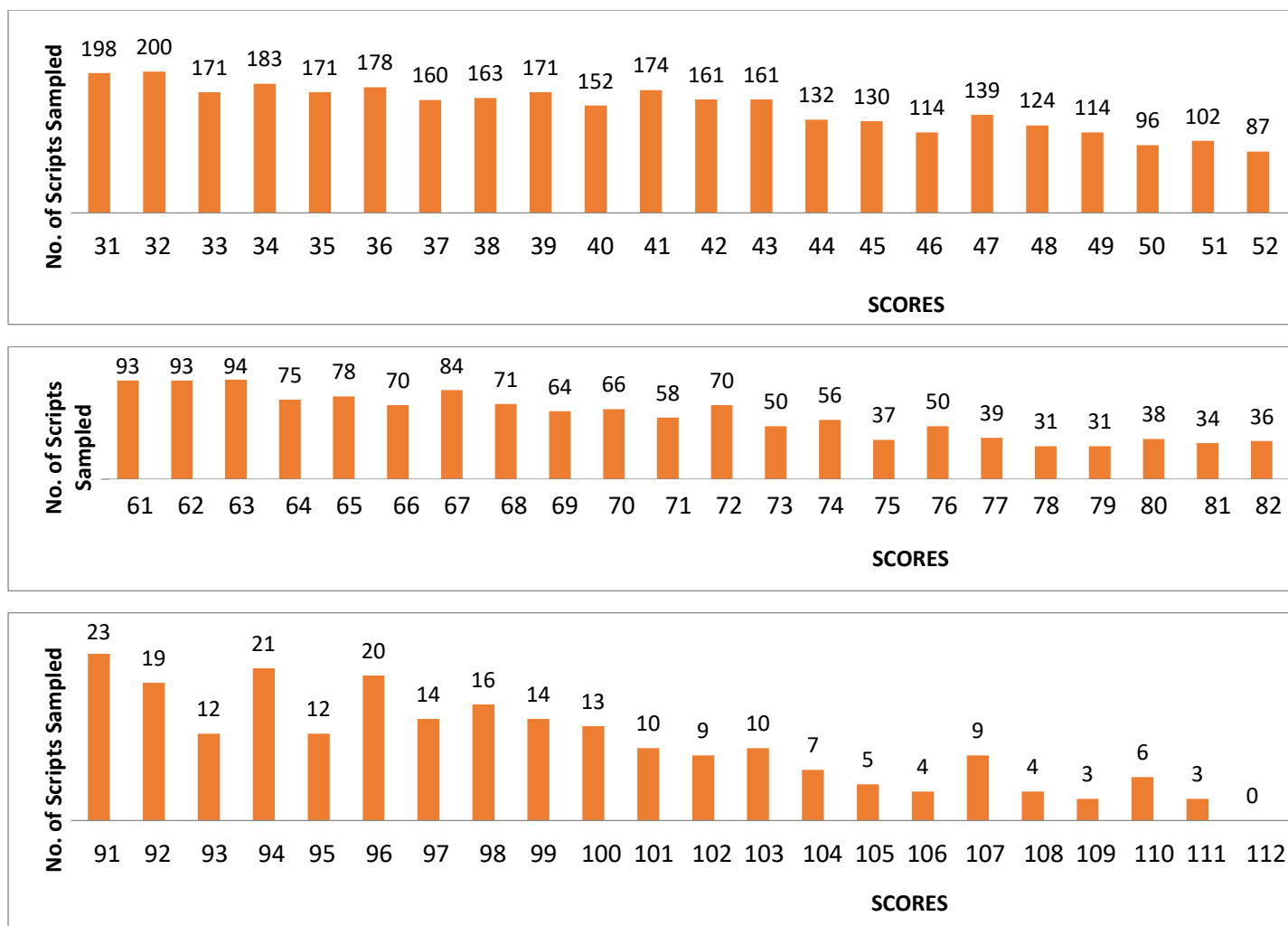
RANGE OF SCORES ON 120	90 to 120	60 to 89	40 to 59	25 to 39	00 to 24	TOTAL
NUMBER OF SCRIPTS SAMPLED	261	1616	2278	2981	557	7693

NORMAL DISTRIBUTION OF SCORES OF CANDIDATES



FREQUENCY DISTRIBUTION OF PERFORMANCE





From the analysis, we can predict that

- 38% of the candidates scored between 25 to 39
- About 54% of the candidates will pass with a C grade or above

5. QUESTION BY QUESTION ANALYSIS

This analysis will be based on paper 2.

SECTION A

QUESTION 1

The questions were testing in knowledge, understanding and application of the Periodic classification of elements, families of elements and relative reactivity.

Most candidates attempted this question. The performance of candidates was average.

Suggestions: Teachers should emphasize to learners the need to understand how to use the concept of electronic configuration to classify elements into groups and periods, determine valencies of elements and write chemical formulae for binary compounds.

QUESTION 2

This question was testing the knowledge and understanding of the Chemistry of selected metals in common use.

Most candidates demonstrated a mastery of the reactivity of metals

Suggestions: Teachers should emphasize on the general reactivity of metals with respect to water and dilute acids.

QUESTION 3. The question was testing the understanding and application of the concept of reversibility. Most candidates could not distinguish between position of equilibrium and yield. Candidates performance was poor

Suggestions: Learners should be made to understand Le Chatelier's principle and apply it to determine the equilibrium position and yield of a product

QUESTION 4

The question was based on the knowledge and understanding of the principles of Organic Chemistry. This was the question with best performance in \section A.

Suggestions: Candidates should be made to understand the link between the functional group and reactivity of an organic compound. Emphasis should be laid on reagents and reaction conditions

QUESTION 5

This question was testing Mole concept and Extraction of metals. This was the most attempted question in Section A with average performance

Suggestions: Teachers should lay more emphasis on calculation of molar mass of elements, molecules and compounds.

SECTION B

This section is intended to test the following science process skills: reading skills, recording skills, reporting skills, critical/creative thinking skills, logical thinking/inferential skills, problem-solving skills and skills in carrying out simple calculations. Candidates are also expected to show a mastery of elementary experimental design and laboratory procedures.

QUESTION 6

The Question was testing Acid-base titration, analysis of data and simple laboratory techniques of dissolution of gases. Most candidates performed well on this question. A few candidates however demonstrated poor skills in analysis of experimental data

Suggestions: Learners should be exposed to much laboratory work.

QUESTION 7

The question was testing skills qualitative analysis, experimental design and technique of separation. Though the performance was good, most candidates demonstrated poor skills in experimental design.

Suggestions: To avoid crude memorization of experimental setups, Teachers should train learners to be able to use the available laboratory material placed at their disposal to perform assigned task. Solving life problems is the real meaning of CBA

SECTION C

QUESTION 8

The question was testing knowledge and understanding of the laboratory procedures in the preparation of salts. Most of the candidates attempted this question, with performances above average

Suggestions: Teachers demonstrate the preparation of salts using the principal general methods, laying emphasis on procedure used to ensure purity of the salt and methods used to recover solid sample from salt solution.

QUESTION 9

This question was testing industrial manufacture of ethanol by the process of fermentation. This is one of the processes used to produce local gin. The performance was relatively poor.

Suggestions: Teachers should avoid the syndrome of making learners believe there are some *traditional* topics in Chemistry.

QUESTION 10

The question was on some laboratory conversions. This was the worst question in Section C. Most candidates avoided the question. Candidates were unable to identify the correct reagents used to carry out simple conversions in organic and inorganic reactions.

Suggestions:

Teachers should lay emphasis on types of reactions, illustrating each type with suitable chemical equations.

6. SUGGESTIONS/RECOMMENDATIONS

Students are advised to.

- Associate what they learn in class to their immediate society
- Take more interest in group learning
- Use the available technology in their learning. There is enough out there on the internet. Exploit it positively.

Teachers are encouraged to:

- Stimulate students' interest in Laboratory work in Chemistry.
- Appropriately integrate learners' activities in the teaching of Chemistry.
- Integrate the selection and use of appropriate and relevant media in their lesson.
- Take more interest in Pedagogic workshops/ seminars as this will enable teachers to share classroom experiences.
- Adopt modern learner-centered methods of teaching such as laboratory, lecture-demonstration, illustrated-lecture
- Use of teaching strategies such as cooperative learning that enhance learner's interactions and encourage peer tutoring.
- Learn to reach out. There is enough instructional material out there in the community that can be donated, borrowed or bought cheaply.
- Create awareness of technology, learn how to use them and to properly integrate the available technology into the teaching/learning process. The use of virtual labs is highly encouraged.

Principals and **school proprietors** are encouraged to

- Acquire the necessary chemicals and equipment to enable teachers do Laboratory work
- Acquire the Microchemistry kits when standard laboratory is absent.
- Facilitate and ensure that teachers attend seminars/workshops in Chemistry.

It is recommended that with the introduction of **Section B** in Paper2, Principals and Proprietors of Schools should endeavor to acquire basic laboratory equipment and chemicals to ensure a better teaching and learning of chemistry.

7. CONCLUSION.

Even though the time allocation for Paper 2 was omitted, this was judged not serious enough to have affected the candidates' overall performance. The Subject Panel and the CGCEB will continue to minimize such errors to ensure that all examination questions meet the required aims and objectives spelled out in the evaluation syllabus.

In line with Vision 2035 and the millennium development goal, Chemistry teachers must ensure that their teaching approaches enable the 21st century learner to acquire the much needed science process skills. Activity Based teaching is therefore recommended as a better teaching strategy that enables students to develop critical thinking and problems solving skills.

0520 COMMERCE

INTRODUCTION

The marking took place again amidst the COVID-19 pandemic just like the 2020 marking session but examiners respected strict government rules of wearing of face masks, washing of hands with soap and running water, and maintaining social distancing. The examination is made up of two papers;

Paper one is a multiple choice question (MCQ) paper. The total number of questions was (50) fifty. All questions were to be answered. The duration of the paper was One Hour Thirty Minutes. The weighting of the paper is forty (40%) percent of the examination. The scoring of this paper is by an optical mark reader.

Paper two is an essay type question paper. The paper met with the aims and objectives of the syllabuses. There were six questions and candidates had to answer any FOUR. The duration of the paper is Two hours, thirty minutes. The weighting of the paper is sixty (60%) percent of the examination.

Questions 1, 2, 3 and 4 were most popular while questions 5 and 6 were not popular. The best scores were recorded in questions 2 and 4 where a good number of candidates scored 20 on 20 while the least scores were recorded for questions 3 and 4. The best score of the paper recorded was 75 on 80. On the whole the performance of the candidates was quite above average.

The 2021 marking exercise went hitch free as there were no cases of illness and security threats. Most examiners were however not satisfied with facilities (at the restaurant food was always limited, toilets were very far from marking rooms and lighting was poor) available at the marking centre.

I - SYLLABUSES COVERAGE AND TEST ITEMS

QUESTION	Q1	Q2	Q3	Q4	Q5	Q6	TOTAL
TEST ITEM							
Knowledge	5	4	8	4	12	4	37
Comprehension	9	4	12	8	8	8	49
Application	6	8	-	8	-	8	30
Analysis	-	4	-	-	-	-	04
TOTAL	20	20	20	20	20	20	120

Percentage coverage of test items of the examination paper;

TEST ITEM	TOTAL MARKS	PERCENTAGE
Knowledge and Comprehension	86	72%
Application	30	25%
Analysis	04	03%
Total	120	100%

II - QUESTION BY QUESTION ANALYSIS OF PAPER TWO

Question One.

(a) The question was on the notion of commerce on the distinction between direct and indirect production. It was fairly attempted by candidates scoring above 85% of the total score. Direct production is meant for personal consumption while indirect production is for the market.

(b) Candidates were tested on the branches of production which are Industry, Commerce and Direct Services. Some candidates instead gave the stages of production (Primary, Secondary and Tertiary production). Scores were above 70%.

(c) This was on retail trade and candidates were required to give reasons for the survival of small retail shops. Reasons include the need for small capital, market size; nature of the product sold, large firms started as small firms, etc. scores were far above average.

Candidates understood question as the percentage pass was above 70% with the highest score being 19 on 20 and the least score being 04%.

Question Two.

The question was on Transport and Advertising.

(a) The question tested candidates of the factors businessmen will consider when choosing a means of transport for their goods which include distance, location of goods, speed of transport system, flexibility, safety of goods, freight charges, etc. Total marks were 08. Above 60% of the candidates who attempted the question scored all the marks. The others scored between 02 and 07 marks.

(b) The question is on marketing communication with specification on advertising (importance of advertising to a company). Many candidates scored all the marks and a few scored below average marks.

(c) Candidates in the question were expected to show the distinction between tramps ships and cargo liners. It was poorly attempted as only about 40% of the candidates scored some marks.

The highest score recorded was 17 on 20 and the lowest score was 14 on 20. On the whole candidates performed well in answering the question.

Question Three.

The topic examined was on banking and insurance.

(a) This part of the question was to give the differences between current and deposit accounts in term of withdrawals from accounts, interest on savings, charges on bank operations, notice of cash withdrawals, and the use of cheques or pass books for cash withdrawals, etc.

(b) The question in this part was on the difference between crossed and open cheques. Most candidates could not use simple examples of drawings of cheques.

(c) The topic insurance was examined in this section of the question. Candidates were required to explain some insurance risks such as burglary, consequential loss, fidelity guarantee and jettison.

Most candidates attempted the question but best scores were recorded in banking. It was a popular question to candidates.

Question Four.

(a) The question was on International trade. Candidates were required to explain any reasons why firms are encouraged to sell goods abroad which are simply the advantages or importance of international trade. More than 80% of the candidates who attempted the question understood the question as scores were far above average. The required answers trade as a source of income to the country, jobs creation, improves balance of trade and payments, higher standards of living, etc.

(b) This part of the question expected candidates to explain reasons why countries impose barriers on trade despite its benefits. The candidates who attempted the question understood it well as about 90% of them registered above average scores.

(c) Question was on consumer protection. Candidates were tested on the main methods of consumers' protection which includes Legislation, Governmental Departments and Independent Associations. Many candidates did not attempt the question. Some of those who attempted the questions instead stated the reasons for protection. The scores registered were less than 40%. The total score was above average recorded mostly in the first two parts of the question.

Question Five.

(a) The question was on the factors to consider before commencing a retail business such as types of goods, market, experience, rents to be paid, capital, etc. About 80% of candidates attempted the question and registered very good scores.

(b) Candidates were tested on business organization specifically of co-operative societies (characteristics or features such as freedom of memberships, democratic control, protection of members' interest, etc.). Sixty percent of the candidates answered the question and scores above average were recorded.

(c) This part of the question was on the importance of warehousing to wholesalers. The weighting was four (04) marks. Above 55% of the candidates scored all the marks with about 10% obtaining no marks.

On the whole candidates performed well answering the question with the best score being 18 on 20.

Question Six.

The test items of this question were on the topics Business Performance.

(a) Candidates were provided with information (opening stock, purchases, net sales and closing stock) to be used to calculate Cost of goods sold and Gross profits.

Performance was below average

(b) The question of this section is for candidates to give the importance of profits to a business such as increase capital for business expansion, source of innovation, reward for bearing risks, attraction of investors and lenders, etc.

(c) This last of the question was for mere definitions and examples of current assets and current liabilities as elements of a firms' balance sheet. Currents are assets that constitute the circulating capital of a business (stock at close, debtors, cash in hand and at bank, advance payments) while current liabilities are short term debts of a business (creditors, short term loans, etc).

This was the least attempted question. Question was mostly answered by TVE exam candidates.

III – GENERAL IMPRESSION

Syllabuse coverage for Paper One is 100% while for Paper Two was above 90%.

Candidates' performance is quite above average. This is confirmed with the data below based on a sample size of 33034 scripts.

Marks Range	0-30	31-45	45+	Total
No. of Scripts	12310	12363	8361	33034
Percentage	37.3%	37.4%	25.3%	100%

Figure shows the mode distribution of marks recorded from a sample size of 33034 scripts. From the distribution, we can estimate the percentage pass of candidates to be between 58 % and 65% which is above average as a majority of candidates (62.7%%) is noticed from the data scoring above 31marks on a total of 80.

The performance from the sample size can be used to conclude that the results of 0520 Commerce for the 2021 GCE session will be above average.

IV - RECOMMENDATIONS

- Teachers are advised to take seminars serious, equip themselves with necessary textbooks and manuals. Ensure proper coverage of the syllabus during the year than rely on last minutes revision classes.
- Seminars should be organized on the various types of ships in sea transport, business ownership and business performance (types of expenses, trading and profits and loss accounts and the balance sheet) and on insurance.
- Parents and guardians should buy the necessary textbooks and other didactics materials (work books, subject dictionary) for their children.
- Principals and school authorities should finance teachers' attendance during commerce seminars.

0525- ECONOMICS

1. INTRODUCTION

The examination consisted of two papers: Paper I which comprised 50 Multiple Choice Questions (MCQs) and Paper 2 which comprised of 8 Essay type questions. Candidates were expected to answer all questions in Paper 1 and 5 questions out of the 8 questions in Paper 2. The questions in both papers adequately covered the entire syllabus and were within the reach of the average candidates.

2. STRUCTURE OF PAPER 2

- 2.1 **GENERAL IMPRESSION:** During the workshop at the end of the marking session, the examiners observed that this paper was average.
- 2.2 **STRENGTH OF PAPER:** It was about the same as that of 2020
- 2.3 **LANGUAGE:** The language used was simple and straight forward.
- 2.4 **RUBRICS:** The instructions were very clear.
- 2.5 **NUMBERING:** The questions were properly numbered from Question 1 to Question 8 with all sub sections clearly indicated.
- 2.6 **MARK ALLOCATION:** Marks were properly allocated
- 2.7 **TYPING:** The questions were well typed and very clear.
- 2.8 **WEIGHTING OF QUESTIONS:** Each question carried 20 marks, thus weighting was equitably distributed.

3. GENERAL PERFORMANCE IN PAPER 2

Candidates' performance in the 2021 Ordinary Level Economics 0525 Paper 2 is better compared to 2020. From a random sample of 1,005 marked scripts, it was observed that candidates' performance was still below average though better than the previous year.

4. QUESTION ANALYSIS: Question Analysis of Paper 1 and Paper 2

4.1.1. Paper 1

Paper 1 constitutes Multiple Choice Questions and was scored by the computer. Consequently, the Analysis of Paper 1 could not be done by the Subject Panel.

4.1.2. Paper 2

The paper consisted of 4* questions (Q5, Q6, Q7, and Q8), 2** questions (Q2 and Q4) and 2*** question (Q1 and Q3).

4.2. Question by Question Analysis

The analysis was made from a sample of 1,005 marked scripts.

4.2.1 QUESTION POPULARITY RANKING:

RANKING	QUESTION NO.	SYLLABUS AREA	NO. ATTEMPTED	% ATTEMPTED
1 st	Question 4	Money and Banking	900	89.55

2 nd	Question 8	Public Finance	766	76.2
3 rd	Question 7	Economic Growth and Development	686	68.26
4 th	Question 2	Production	584	58.11
5 th	Question 3	Price Theory	529	52.64
6 th	Question 5	International Trade	514	51.14
7 th	Question 7	National Income	409	40.64
8 th	Question 1	Population	368	36.62

4.2.2 QUESTION PERFORMANCE RANKING

RANKING	QUESTION NO.	SYLLABUS AREA	NO. ATTEMPTED	NO. PASS	% PASS
1 st	Question 4	Money and Banking	900	517	57.44
2 nd	Question 3	Price Theory	529	284	53.69
3 rd	Question 5	International Trade	514	259	50.39
4 th	Question 8	Public Finance	766	375	48.96
5 th	Question 5	Production	584	274	46.91
6 th	Question 1	National Income	409	184	44.99
7 th	Question 7	Economic Growth and Development	686	268	39.07
8 th	Question 1	Population	368	128	34.78

One could further analyze the above sample size of 1,005 marked scripts in terms of percentage and number of successful candidates.

4.2.3 ECONOMICS PERFORMANCE STATISTICS FOR 2021

RANGE	FREQUENCY	CUM FREQ	%	CUM %
>90	3	3	0.29	0.29

80 – 89	13	16	1.29	1.58
70 – 79	39	55	3.88	5.46
60 – 69	89	144	8.85	14.31
50 – 59	125	269	12.43	26.74
40 - 49	197	466	19.6	46.34
30 – 39	130	598	12.93	59.27
20 – 29	178	774	17.7	76.97
10 – 19	129	903	12.83	89.8
0 – 09	102	1005	10.15	100
TOTAL	1005		100	

If 50% is considered as a pass mark, the percentage pass from the sample will be 26.74% as oppose to 20.1% in 2020 which means that 269 candidates out of a sample size of 1,005 will be successful as opposed to 203 candidates out of a sample size of 1,023 in 2020.

Also, if 40% is considered as a pass mark, the percentage pass from the sample size of 1,005 will be 46.34% as opposed to 32.23 % in 2020. This means that 466 candidates will be successful in a sample of 1,005 as opposed to 330 candidates out of a sample size of 1,023 in 2020.

5.0 Sectional and performance Analyses from a random sample of 1,005 scripts.

QUESTION NO.	SECTION	SYLLABUS AREA	SPECIFIC TOPIC	NO. ATTEMPTED	NO. PASS	% PASS
Question 1	a.	Population	Optimum Population	368	99	26.9
	b. i)		Size of Dependent Pop.		100	27.2
	ii)		Dependency Ratio		76	20.7
	iii)		Per Capita Income		128	34.8
	c		Emigration effects		155	42.1

Question 2	a. i)	Production	Economies of Scale	584	255	43.7
	i i)		Division of Labour and Efficiency of Labour		363	62.2
	iii)		Specific and Non Specific Factors of Production		239	40.9
	b		Determinants of Efficiency of Labour		212	36.3
Question 3	a.	Price Theory	Determinants of market price	529	427	80.7
	b i)		Minimum Price		296	55.9
	ii).		Consequences of Minimum price		213	40.3
			Calculation of PES		238	44.9
			Factors affecting PES		51	9.6
Question 4	a.	Money and Banking	Differences between Commercial Bank and Central Bank	900	572	63,6
	b.		Functions of Money and Barter problems solved		308	34.2
Question 5	a.	International Trade	Measures to cure BOP Deficit	514	139	27.0
	bi)		Defining Comparative Cost Advantage		200	38.9
	ii)		Defining Absolute Advantage		227	44.2
	c		Methods of Trade Restrictions		391	76.1

Question 6	a.	National Income	Uses of National Income	409	127	31.1
	b.		Problems faced in measuring National Income		175	42.8
Question 7	a. i)	Economic Growth and Development	Defining Economic Growth	686	290	42.3
	ii)		Defining Economic Development		212	30.9
	b		Benefits of Economic Growth		513	74.8
Question 8	a. i)	Public Finance	Explaining Proportional tax with examples	913	189	24.7
	ii)		Explaining Progressive tax with Examples		242	31.6
	b. i)		How Government spends its revenue		427	57.7

6.0 Individual Question Analysis

Q/N	Topic	Performance Ranking	%Pass	Remarks
Q1	Population	8th	34.78	Of the 368 candidates that attempted this question, 128 of them scored a pass mark.
Q2	Production	5th	46.91%	Of the 520 candidates that attempted this question, 274 of them scored a pass mark
Q3.	Price Theory	2nd	53.69%	Of the 529 candidates that attempted this question, 284 of them scored a pass mark.
Q4	Money and Banking	1st	57.44	Of the 900 candidates that attempted this question, 517 of them scored a pass mark.

Q5	International Trade	3rd	50.39%	Of the 514 candidates that attempted this question, 259 of them scored a pass mark.
Q6	National Income	6th	44.99%	Of the 409 candidates that attempted this question, only 184 of them scored a pass mark.
Q7	Economic Growth and Development	7th	39.07	Of the 686 candidates that attempted this question, only 268 of them scored a pass mark.
Q8	Public Finance	4th	48.96%	Of the 766 candidates that attempted this question, only 375 of them scored a pass mark.

7.0 SOME DIFFICULTIES/CHALLENGES THAT COULD HAVE AFFECTED THE PERFORMANCE OF CANDIDATES.

7.1 Environment

- Ghost Towns in the NW and SW Regions where some students do not have the opportunity to go to school five days in a week.
- The Two Shift system of schooling because of the COVID 19 pandemic reduced teaching and learning hours.
- Redeployment of teachers creates absences in some schools.
- Peer pressures with some schools polluted with sects and violence.
- Problem of Social Media (Facebook and Whatsapp) consuming a lot of study time.

7.2 Teachers

- Some teachers give very shallow notes to their students.
- Many teachers do not cover the syllabus.
- Some teachers organize Toll gate classes at the eve of the GCE examination. These classes get the students more confused as they consider the classes as speculation classes.
- In some schools, teachers do not hold departmental meetings.

7.3 Candidates

- Most candidates neglected Forms 3 and 4 work.
- Many more students are now attempting the GCE Ordinary Level while in Form 4.
- Many candidates faced problem of adaptation with new environment given that some accommodation centres were moved to other places and some candidates are internally displaced.
- Many candidates do not go to school after the Mock GCE examination.
- Speculation derailed most candidates etc.

7.4 SCHOOLS.

- Some private school proprietors stop payment of salaries in the month of May thus classes also stop in that month.
- Some schools give just two teaching periods a week for Economics.

7.5 The Government

- Poor Inspection of teachers by the RPIs.
- Too many subjects instituted by the Government at the Ordinary Level.

8 SUGGESTIONS/RECOMMENDATIONS

- Need for departmental meetings to be regular in schools.
- Need for regular inspection by RPIs.
- Need for teachers to cover the syllabus.
- Teachers motivation should be reasonable.
- Discipline in Schools should be enforced.
- Need for teachers to update their lesson notes.

9 CONCLUSION

If all these suggestions are taken into consideration it will go a long way to improve the performance in the 0525 Economics in the next academic year.

530-ENGLISH LANGUAGE

GENERAL REMARKS: The examination met the aims and objectives as prescribed by the syllabus, in that, it tested Listening Comprehension, Reading Comprehension, Grammar and Vocabulary, Directed Writing, and Composition. However, this report will be based on paper 2 since paper 1 was scored electronically.

SECTION A: DIRECTED WRITING.

The stimulus material for Directed Writing was familiar, educative and true to life. Performance was above average. Nevertheless, some candidates performed poorly for the following reasons:

- Inability to understand the task that is, writing an article for a magazine,
- Poor mastery of the format for writing an article, which should include
 1. A heading / Title/ Caption.
 2. The writer of the article.
- Non-respect of instructions: word and paragraph limits.
- Inability to select **ALL** relevant material.
- Lifting, that is, indiscriminate copying of the stimulus/source material or re-copying the material for an answer.
- Poor mastery of expression and slanting techniques.
- Inability to correctly use transitional words such as *firstly, also, however, nevertheless, moreover, furthermore, in addition* etc.
- Use of *moreso* as a connective.
- Use of non-existent words as connectives such as *better still, more still, more again, further still, etc.*
- Repetition of transitional words to express the same idea in the same sentence, for example, *in addition* another benefit/ importance of banana is *also*....
- Poor mastery of the role they had to assume in the task, that is, *The Banana Project Manager of SOWEDA*.
- Un-cancelled plans.
- Poor handwriting.
- Addition of their own knowledge of banana.
- Poor mastery of paragraphing, e.g. listing points rather than writing in continuous prose and leaving unnecessary gaps between sentences/lines.
- Writing in more than one paragraph.
- Use of pencil instead of black or blue ink.
- Use of strange language other than English.
- Use of French vocabulary and structure.
- Crossing out of the entire answer without providing an alternative.
- Failure to attempt the question.
- Collusion.

RECOMMENDATIONS

Teachers should

1. teach the different writing tasks such as *articles, formal and informal letters, speeches, talks, reports, debates, minutes of a meeting etc*
2. emphasize on the format/layout of the above tasks.
3. teach students to interpret tasks appropriately and assume assigned roles.
4. constantly remind students to avoid disclosing their identity in their answers, e.g. name, school, parentage, telephone numbers etc.
5. remind learners to use only the name and address provided.

6. teach learners to use only the stimulus/source material and not their life experiences/knowledge.
 7. teach learners to select **ALL** relevant material.
 8. lay emphasis on aspects of expression, such as correct use of transitional devices (addition, contrast, cause and effect) and sentence structure in general.
 9. teach grammar, spelling and punctuation thoroughly.
 10. teach learners to strictly respect instructions on paragraph and word limits.
 11. drill learners on making plans and crossing them out before writing the final answer.
 12. teach learners to write following appropriate tones.
 13. teach the proper shapes of letters of the alphabet.
 14. remind learners to always read over their work.
 15. remind learners not to cross out their work unless they have provided an alternative.
- On the whole, constant drills and practice will help learners master Directed Writing tasks better.

SECTION B: COMPOSITION

The topics were varied, relevant and familiar to the candidates and this enabled most of them choose easily. A good number scored above average for **content** and **organization**, slightly below average for **expression** and below average for **accuracy**. Overall performance for this section was below average. This was as a result of the following:

- writing on more than one topic
- attempting all the questions rather than one
- writing two compositions on the same topic and forgetting to cancel one
- copying the instructions and/or topics repeatedly
- writing unintelligibly in a language that is not English
- inconsistency in the use of tenses
- lack of appropriate vocabulary to express thoughts effectively
- thinking in the mother tongue or Pidgin English and translating such into English, thereby imposing the syntax of these languages on the English Language
- segmenting topics under the marking rubrics instead of writing continuously, e.g. paragraph 1: Content; paragraph 2: Accuracy; paragraph 3: Expression
- listing ideas instead of writing in continuous prose
- tabulating
- copying portions of/or the entire Directed Writing text as their compositions
- writing out of topic / pre-prepared composition
- not attempting the section at all
- revelation of identity
- writing and crossing out the entire work
- writing short and /or unnecessarily long and irrelevant compositions

- poor paragraphing
- writing the whole essay in one paragraph
- lack of paragraph unity
- writing the entire paragraph in a single sentence

Generally, most candidates showed poor mastery of writing skills.

TOPIC BY TOPIC ANALYSIS

Topic A: Tell a story that ends with.....That was when peace finally returned to our family.

This was a popular topic. Unfortunately, the performance was slightly below average because

- candidates did not understand the scope of the topic, which is the cause of the problem in the family, the impact and peace process/ resolutions.
- a few did not narrate their own experiences
- some did not end as instructed
- some concentrated more on their family life prior to the problem and were brief on the impacts/ resolutions
- some wrote compositions that had no bearing with the ending

Topic B: Describe a market scene on the eve of an important festival.

This was not a popular topic. The few who attempted performed poorly because

- they concentrated more on the festival rather than on the market scene
- Some could not distinguish between an ordinary market day and a market on the eve of a festival
- candidates lacked descriptive skills and as such were unable to vividly describe the activities of the market

Topic C: Women.

The topic was fairly popular, however, some who attempted failed because:

- they did not delimit the scope of the subject
- they presented sketchy/underdeveloped answers

Topic D: Write about some negative habits that are leading young people astray. Suggest ways by which these habits could be avoided.

The topic was popular. Performance was average. However, some candidates failed because

- they listed habits without developing them
- they failed to explore all the parts of the topic, that is, the negative habits, and ways by which these habits could be avoided

Topic E: Students should not do holiday jobs. Do you agree?

This was a popular topic. Performance was poor because

- the right approach for argumentative essays was not respected, that is, acknowledging the opposing view, refuting it, raising arguments for the motion and developing them to a logical end.
- some candidates wrote on the advantages and disadvantages of holiday jobs.
- some presented their work in a tabular form.
- many wrote a one sided argument.
- a few did not argue but explained the meaning of holiday jobs.

Topic F: Tell a story that illustrates the saying: Charity begins at home.

- It was not a popular topic. Performance was below average because candidates could not interpret the proverb, which means that one should take care of one's family before helping others.

Topic G: Write a letter to your sister explaining how you made your mother angry and the consequences of your actions:

It was a fairly popular topic. Performance was average. Nevertheless, some performed poorly as a result of their

- inability to respect the scope of the composition, that is, the candidates' inability to adequately bring out negative behavior towards the mother and the consequences.
- others did not master the format of an informal letter.

Topic H: Write a story, a description or other form of composition suggested by one of the following pictures. Your composition may be directly about the subject of the picture or take some central suggestion(s) from it. There must be a clear connection between the picture and your composition.

Picture A

It was a popular topic. Performance was slightly above average in content essentially, because candidates made use of their knowledge of economics. However, a few failed because of organizational lapses, such as listing the importance of money and writing sketchy notes or tabulating the advantages and disadvantages of money. Some were unable to delimit the scope of topic.

Picture B

- It was the least attempted topic and performance was poor. This was because their compositions had no link with the picture while a few candidates simply described the picture.

OBSERVATIONS

Candidates did not show mastery of grammar (the correct use of tenses, subject/verb agreement etc) and punctuation. Many words were misused or wrongly spelt. Some examples are

- | | |
|--|----------------------------|
| ➤ Prospend for postpone | ➤ Recompense for reward |
| ➤ Frustrate for frustrate | ➤ Pass time for spend time |
| ➤ Off lights for turn/switch/put off | ➤ Married for marriage |
| ➤ Write a test/exam for sit for/take an exam | ➤ Enemity for enmity |
| ➤ Hospital bee for hospital bill | ➤ Leave for live |
| ➤ Rubber for robber | ➤ Macturity for maturity |
| ➤ Wicket for wicked | ➤ Macture for mature |
| | ➤ Orphant for orphan |

- Legs for foot
- Harrasment for harassment
- Writting for writing
- Drive for send away
- Advise for advice
- Testbook for textbook
- Childhood for childhood
- Writing equipment for writing material
- Banane for banana
- Right for write
- Call my mother's number for call my mother
- Hole for whole
- Smooking for smoking
- Thiefting for stealing
- Truely for truly
- Greatful for grateful
- Attain for attend
- Practice for practise
- Thought for taught
- No for know
- New for knew
- Leaving for living
- Faithful for fateful
- Rainy for raining
- Being for been
- Classmade for classmate
- Bordering school for boarding school
- The for there
- Were for where
- Always for all ways
- Turn for tend
- Cut for caught
- Went for when
- Bit for beat
- Now our days for nowadays
- Each other for themselves
- Theif for thief
- Earn for end
- Fine for find
- Morestill/nextly/moresover/moreso for moreover etc.
- Talkless for not to talk of
- Since as for because for since
- Return back for return
- Pregnanted for impregnate.
- Save for safe
- Fail for fell
- Set for said.
- Gentlement for gentlemen
- Suddently for suddenly.
- Goverment for government.
- Occassion for occasion,
- Seondry for secondary
- Enviromement for environment
- To begin for to begin with
- Caught for caught
- Young youths for youths
- Trek on foot for trek
- Most best for best
- Chosed for chose
- Carry water for draw water
- School belongings for school needs
- Smoothing for soothing
- Site for sight
- Site for side
- First mother for step mother
- Off late for late
- Loin for loin cloth
- In other for in order
- House choice for house chores
- Mexcine for medicine
- Resume back for resume
- Hand in hand for hand in gloves
- Market sin for market scene
- Feature for future
- Graceful for grateful
- Cutlass for collapse
- Holyday for holiday
- Bitting for beating etc

RECOMMENDATIONS

- Learners should be encouraged to speak English and to avoid pidgin as much as possible.
- Teachers should constantly remind their students to avoid writing their names and schools in their answers.
- Teachers should encourage extensive reading.
- Learners should be drilled on all forms of compositions. Particular attention should be paid to the argumentative, picture, process, proverb and the open-ended compositions.
- Handwriting should be taught.
- Drills on planning compositions should be encouraged.
- Paragraph development should be taught, especially the proper use of linking devices, topic sentence, facts, details, examples, explanation, illustrations etc.
- Paragraph types (indented and block) should be taught and students advised to be consistent. Emphasis should be laid on the indented type for manual writing.
- Learners should study English language as a subject and not just as a language of communication.
- Teachers should do more drills to improve on learners' writing skills.
- Teachers should teach traditional grammar which will help in competence and performance.
- Learners should be encouraged to possess and use textbooks, dictionaries and other reference material.
- Learners should be taught to always cross out their plans.
- Emphasis should be laid on spelling and punctuation.
- Learners should be encouraged to respect the word limit for composition (450-500 words).

Overall appraisal

Performance in the subject was slightly below average.

0535 – LITERATURE IN ENGLISH

1. INTRODUCTION

This paper tested the current syllabus, which will expire in 2022. The aims and the objectives of the syllabus were reflected in the questions as follows:

Knowledge 56%
Comprehension 26%
Application 18%

Comparatively the paper was more demanding than 2020. The style of questions setting was the same as the previous years. There was a 50/50% weighting of questions in each of the FOUR SECTIONS A. B. C. D. There was equally a balance in the allocation of marks. However, Application was stepped up from 14% to 18%, Comprehension was stepped up from 24% to 26% while Knowledge dropped from 62% to 56%. The stepping up of Application had a negative influence on the performance of candidates. The performance dropped drastically from 46% to 40% at the grade boundary of 40. Candidates had difficulties in answering questions on style particularly in Questions 3 and 7.

The overall performance of the candidates was **MEDIOCRE** as seen in the grade boundaries below.

SCORE	0-20	21-30	31-39	40	41	42	43-60	61-74	75+
CANDIDATES	8913	6891	5097	1973	1102	1231	8058	1539	108
PERCENTAGE	25.53 %	19.74 %	14.60 %	5.65 %	3.15 %	3.53 %	23.08 %	4.41 %	0.31 %

Out of 35,664 scripts, 14,011 passed from grade boundary of 40, scoring 40.13%.
For Paper 1 we did not mark and therefore we could not give the performance rate.

2. TRIAL MARKING

Trial marking proper started on Thursday 29th July 2021 and ended on Friday 30th July 2021 in the afternoon. During trial marking examiners were paired and each pair marked a pack of 20 scripts. Each examiner from the pair marked 10 scripts and exchanged with his/her partner. Marking at this stage was done on blank sheet of papers and transferring of marks on the scripts was done only after the pair had discussed, agreed and harmonized in collaboration with ACEs. All examiners took active part in this exercise.

3. PAPER BY PAPER ANALYSIS

PAPER 1: There were 50 MCQs for candidates to answer all. Examiners did not mark Paper 1. However, the paper was more demanding as compared to the previous year but the structure remained the same.

PAPER 2: Most candidates (about 98%) attempted all questions from **SECTIONS A. B. C and D.** This was an indication that most schools attempted to treat the entire syllabus. The structure

of the paper did not change as eight (8) questions were tested following the rubrics of the examination and there were no questions paper effects on both Papers 1 and 2.

4. QUESTION BY QUESTION ANALYSIS.

SECTION A: DRAMA: WILLIAM SHAKESPEARE: AS YOU LIKE IT

QUESTION 1

The question was very popular as about 95% of the candidates attempted to answer the question. The performance rate was about 60% and candidates had no difficulties in answering the question. The high performance recorded was because the main character (Duke Senior) in the play is well known and popular to candidates. Equally, the extract was popular, short and candidates could easily identify where the extract was taken.

QUESTION 2

In question 2, 5% of the candidates attempted the question. The performance rate was less than 10%. The candidates had difficulty in answering the question because the characters in the play were not popular (minor – Touchstone and Corin) and the extract was set on a dialogue. Again, candidates could not relate what happened after the dialogue. Teachers should revisit their teaching methodology on characterization.

SECTION B: AFRICAN LITERATURE: TAH PROTUS: THE IMMORTAL SEED

QUESTION 3

The popularity rate was 25%. The candidates' performance was less than 30%. The candidates had difficulty in identifying the various sorrowful incidents in the novel and narration of the incidents. Equally, the candidates were not able to say why the incidents were sorrowful.

QUESTION 4

Question 4's popularity rate was 75% while the performance was also above average, rated at 70%. The candidates performed better because the question tested the character trait of the main character in the novel (Tebene).

SECTION C: CAMEROON ANTHOLOGY OF POETRY: BOLE BUTAKE

QUESTIONS 5 and 6

Question 5 was popular than Question 6. The popularity rate of Question 5 stood at 80% while Question 6 was rated at 20%. The performance rate for Question 5 was 60% while Question 6 stood at less than 10%. Why a drop of the performance rate in Question 6? Candidates did not have a mastery of the poem "Daybreak." Candidates did speculation and since this poem was tested last year, candidates thought that the poem would not be tested again. They had to narrate what they had speculated to come. Hence, they narrated the poem "The Tired Worker" in the place of "Daybreak." Teachers were advised to teach the students all the eighteen poems void of speculations.

SECTION D: PROSE: GEORGE ELIOT: SILAS MARNER

QUESTIONS 7 and 8

Question 7 was set on application – question on suspense, which was very demanding. The popularity rate was 30% while the performance rate stood at 10%. Question 8 popularity rate stood at 70% while the performance rate was 50%. Although the question was popular the material for the character tested was sketchy, so, candidates did not have enough facts to write on this question.

5. SUGGESTIONS/RECOMMENDATIONS

The following recommendations were made to:

a) The Students

- That students should own individual copies of the original texts and read them
- That students should avoid watching Literature videos on the texts
- That students should attend classes regularly and do assignments

b) The Teachers should:

- buy the original texts and read them at home.
- teach all the texts and avoid speculations
- be enthusiastic to teach
- organize and attend seminars
- focus their teaching on contextual analysis and forget about the backgrounds of authors.
- go back to school to update their knowledge
- avoid teaching during the written phase of the GCE
- explore and acquaint themselves with E-learning teaching.
- be knowledgeable on the bloom's taxonomy and apply it in the exams

c) The Parents should:

- provide textbooks for their children
- pay fees on time
- control the use of mobile phones for their children
- accept responsibilities in case of divorce or broken homes

d) The State should equally:

- follow up teachers in the field in order to ensure quality teaching.
- make available enough subventions to the Confessional, Lay and Private schools to ensure qualitative and quantitative teaching.
- revised their policy on promotion of students to the next class
- re-visit and revised their book policy and help fight piracy
- continue to ensure that peace and unity reigns in our schools.
- ensure that internet facilities be installed in urban and rural areas.

6. CONCLUSION/WAY FORWARD

We acknowledge the efforts put in place by the State and GCE Board to curb examination leakages this year. We encourage them to persist in this drive. Equally, more examiners that are new should be invited to gradually replace the aging ones.

0540 FOOD AND NUTRITION

INTRODUCTION:

This subject is made up of three papers. Paper I is made up of 50 MCQ questions to be answered in 1 ½ hours. Paper II is essay type for candidates to answer four questions in 2 ½ hours and paper III is a practical paper. The questions on all three types adequately covered the whole syllabus within the reach of the candidates. The questions and language reflected the subject. Marks allocation were very good and equal to the questions because the syllabus was covered. The questions were well framed and straight to the point.

PAPER BY PAPER ANALYSIS

PAPER I

The setting covered all the syllabus and the questions were all within the reach of the candidates. The language was moderate and the setting was good, well-constructed and distributed and well framed. The performance was above average.

PAPER II

It covered the syllabus, most of the specific aspects of the subjects were touched. It was set in such a way that all topics were touched and as such, all candidates at least had a question to answer.

Question 1. This was the most popular question and the score range was between 6-25 on 25 marks.

Question 2: Also, a popular question and the score range is between 4-22 on 25 marks.

Question 3: Not very popular, especially the part of the question was not well answered, range 0-20 on 25 marks.

Question 4: It was also very popular but part D and E were not popular. Score range 6-23 on 25 marks

Question 5: Very popular and the score range was 5-24 on 25 marks (most candidates attempted it.

Question 6: No popular score range 0-20 on 25 marks.

PAPER III

Candidates were tested on the same text item. Evaluation was objective, candidates followed the questions. The candidates improved on their reasons for choice as compared to last year, because the questions were very specific. Score range 18-58 on 60 marks.

SUGGESTION AND RECOMMENDATIONS

STUDENTS:

- Students with good grades in food and nutrition should be encouraged to continue at the higher level.

- Science students and Arts students should be encouraged to take the scientific aspect of the subject serious.
- Boys should be encouraged to do the subject.
- Orientate students on carrier choices.

TEACHERS:

- Teachers should take the scientific aspect of the subject seriously and ensure that they teach the students properly.
- Teachers should sensitize parents on the innovation of finance in the subject by the GCE Board.
- Teachers should use the money meant for practicals.
- Teachers should teach all the topics from f1 to cover the syllabus.
- Teachers should have a passion for the subject
- They should encourage students to buy the recommended text books (food and nutrition by Anita Tull).

OTHER STAKE HOLDERS

- Stakeholders should accept students to carry out practicals on their subject in their restaurants, hotels, school lab etc.
- Principals should draw their time table in such a way that, this subject don't clash with other science subjects

CONCLUSION

- Schools should ensure that they employ qualified Home-Economic teachers.
- Laboratories should be improved and equipped to meet up with the standard of the examinations.

545 FRENCH

INTRODUCTION

The 2021 session marked the 12th year of the GCE Board organized examinations since the introduction of the Multiple-Choice Questions (MCQs). Just like in the 11 previous preceding sessions the French 545 paper for this year consisted of:

- Paper 1: 50 MCQs. This paper which counts for 40% of the examination comprises 50 MCQs covering the entire ordinary Level French syllabus. The paper had three ambiguous questions ie 39, 47 and 50.
- Paper 2: Question 1: Translation
Question 2: Essay

For paper 1 the instructions were clearly spelt out and for paper 2, instructions were maintained as before.

The examination covered all the aspects of the current GCE Ordinary Level syllabus thus meeting the expected standards.

Unlike in the past, Paper 1 was marked by the computer as the optical mark registration forms were used by candidates this year as has been the case in the past. So, Paper 1 was not marked manually.

Contrary to the previous years, many more candidates attempted the two questions in Paper 2; even though low performances were still recorded in both the Translation and the Essay. This could be due to the following reasons among others;

1. The fact that many schools have been closed down due to the security situation in the North West and South West Regions,
2. Little mastery of the French language mainly due to lack of seriousness on the part of the bulk of candidates and even some teachers,
3. An alarming shortage of qualified teachers of French in several schools especially in the semi-urban and rural areas,
4. The obvious lack of interest and enthusiasm in the subject by learners.
5. The lack of textbooks in classrooms which plays against the development of a good reading culture in learners also demotivates teachers thus impacting negatively on the teaching-learning process,
6. The socio-political atmosphere in the country also accounted for some of the absences and low performances registered in the entire paper.

PAPER BY PAPER ANALYSIS

PAPER 1 MCQs

Candidates' scripts were scored by the machines so we do not have very little to say about the paper.

PAPER 2 TRANSLATION AND ESSAY

Question 1 Translation

The 2021 translation passage was about climate change. A father who had to go out with his wife and children, wondered on the sudden change in climate. He asked his daughter about the issue of climate change as they are taught in school. In response, she said that their geography teacher taught them about how human beings fell trees but do not replant new ones. She concluded that when human beings will learn to replant trees, seasons will become more regular.

The text required the use of the imperfect tense on several instances, then the past narrative tense; principally the “passé composé”, or “passé simple” as the main narrative tense, about seven sentences requiring the use of the simple present tense, one sentence requiring the use of the pluperfect and finally about three requiring the use of the future tense.

Generally, the candidates had little difficulties in translating the essential vocabulary of the text, such that many of them scored more than 70 on 80.

A small number of candidates jumbled up the tenses using the pluperfect (plus-que parfait) for the imperfect (imparfait); the simple past (passé composé) and the simple past (passé simple) alternately as the main narrative tense, or mistook the pluperfect (plus- que parfait) for the perfect (passé composé) and vice versa. These were of course penalized accordingly.

Some candidates recopied the text without translating it and some very few paraphrased it to become their essay.

Question 2: Essay

Candidates were expected to write an essay of 140 -150 words on any one of the three free composition topics.

- Topic a) was a narrative/descriptive essay based on a friend who made the candidate angry, what the problem was, how it was solved, then the attitude of the candidate and the friend thereafter;
- Topic b) was an informal letter to a friend about the celebration of the Bilingualism week in the candidate’s school, preparations, activities and personal impression;
- Topic c) was picture interpretation based on three pictures with focus on the adage “ les voleurs sont toujours malhonnêtes”. The candidate had to describe Baba’s compound, to say how the thieves got into his house, Baba’s action and the reaction of the thieves.

The marking guide for paper two was the same as that of the previous year. Discussions, interactions with examiners have helped the French panel improve on the quality of this document over the years.

The main point of attention was on instructions to examiners; we tried to make them as clear and unambiguous as possible. The discussion of the marking guide began on the 27th August 2021, with subject officials first, then on the 28th August 2021 with all examiners and assistant examiners who had been served with a copy of the marking guide.

The evaluation criteria were proposed as follows:

- La pertinence which has to do with the comprehension of the topics
(Date, lieu, moment, temps, heure, jour, climat, personnage principal, personnages secondaires de l'évènement) has to be appreciated under three specific instructions.
 1. The questions (Où, quand, quoi, qui) should be answered at this level;
 2. The second instruction of the topic (context of the story) the development of the story line has to be presented here: for example, we should be able to see the causes of the anger, followed by the reconciliation of both parties.
 3. The conclusion of the story with emphasis on their relationship afterwards
- La cohérence (logique interne des paragraphes, agencement des idées, usage des connecteurs logiques adéquats, progression logique du travail, le point de vue du narrateur,); here we lay emphasis on whether the story flows or not, the use of linking words, the circumstances of the story, paragraphing, presentation of ideas, does he begin with an introduction and ends with a conclusion? Are his ideas presented in a logical manner?
- La correction de la langue (here we evaluate for accuracy, vocabulary and grammatical categories); it has to do with evaluating the syntax and language use.
- L'originalité (personal style (liaison d'une consigne à l'autre), structure of the letter (introduction, conclusion, paragraphing at least 3, expressions of personal feelings) no use of prelearned material, personal style of the candidate).

Topic	Nature	Main tenses	Errors	Corrections	Relevant vocabulary
a.	Narration and description	Passé composé ou passé simple	Spelling; passé(e)	Passé	
b.	Informal letter involving celebration	Indicative present -passé composé or passé simple -future tense (simple)			

Sujets d'évaluation	Session 2019	Session 2020	Session 2021
	Essay	Essay	Essay
	Sujets a et b; simple narration + la lettre	Sujets a et b ; simple narration + la lettre	Sujets a et b; simple narration + la lettre
	Consignes ; clairement définies. Conséquences; les	Consignes ; clairement définies ; toutefois au niveau de la lettre ; les	Consignes ; clairement définies. Conséquences; les

a and b	<p>récits se présentent de façon cohérente ayant des idées pertinentes</p>	<p>consignes 2 et 3 sont apparues indissociables Conséquences ; les récits se présentent de manière cohérente et les idées qui en découlent pertinentes. Cependant ; la remarque faite dans les consignes 2 et 3 n'a pas rendu facile l'appréciation des candidats. Ce n'est qu'après la 2^e harmonisation qu'une solution a été trouvée.</p>	<p>récits se présentent de façon cohérente ayant des idées pertinentes</p>
c	<p>Sujet c : les images: Présentation: photos floues; pas faciles à interpréter. Consignes: clairement définies; guidant le candidat dans sa production écrite. Module : Environnement; bien – être et santé.</p>	<p>Sujet c : les images Présentation : photos floues ; pas faciles à interpréter. Consignes : clairement définies et guidant le candidat dans sa production écrites. Module : l'impact positif des travaux agricoles « la terre ne trouve pas »</p>	<p>Sujet c : les images : Présentation : photos floues; pas faciles à interpréter. Consignes: clairement définies; guidant le candidat dans sa production écrite. Module 1: vie familiale et intégration sociale</p>
Méthode d'évaluation	<p>Essay -respecte l'approche par compétence ; -évaluation respectant les critères bien définis ; - respecte un barème critérié tenant compte de la pertinence ; de la cohérence ; des idées et du lexique</p>	<p>Essay : -respecte l'approche par compétence ; -évaluation respectant les critères bien définis ; - respecte un barème critérié tenant compte de la pertinence ; de la cohérence ; des idées et du lexique et surtout de l'originalité du candidat</p>	
	<p>Traduction - recherche des mots ou expressions équivalentes</p>	<p>Traduction - recherche des mots ou expressions équivalents ; de tous les éléments grammaticaux de la langue source à la langue cible.</p>	

	Correction Pendant cet exercice ; le correcteur : - est guidé par des consignes ; - relève le niveau d'expression du candidat ; -perçoit sans trop d'efforts la cohérence et la pertinence des idées du candidat ; - peut facilement attribuer une note peu discutable d'une copie	Correction Pendant cet exercice ; le correcteur affûté : - est guidé par des consignes ; - relève le niveau d'expression du candidat et propose des éléments acceptables dans le barème; -perçoit sans trop d'efforts la cohérence et la pertinence des idées du candidat ; relève les difficultés que présentent les sujets pour une éventuelle recherche des solutions ; - peut dès lors facilement attribuer une note peu discutable d'une copie	
	Résultats -peu de copies ayant la note de zéro et /ou le charabia - pourrait revoir le taux de réussite à la hausse.	Résultats -très peu de copie ayant la note de zéro et/ou le charabia ; -la tendance d'une meilleure performance est envisagée.	

RECOMMENDATIONS/SUGGESTIONS

-Maintenir cette méthode de correction qui encouragerait beaucoup d'élèves à ne plus considérer le French comme leur bête noire.

- In essay, 1pt per box was maintained for correct grammatical and lexical use;
- 1pt maximum for each correct finite verb instead of 2pts as it had been in the past.
- La cohérence (logique interne des paragraphes, agencement des idées, usage des connecteurs logiques adéquats, progression logique du travail, le point de vue du narrateur) ; here we lay emphasis on whether the story flows or not, the use of linking words, the circumstances of the story, paragraphing, presentation of ideas, does he begin with an introduction and ends with a conclusion ? Are his ideas presented in a logical manner?

- La correction de la langue (here we evaluate for accuracy, vocabulary and grammatical categories); it has to do with evaluating the syntax and language use.
- L'originalité (personal style (liaison d'une consigne à l'autre), structure of the letter (introduction, conclusion, paragraphing at least 3, expressions of personal feelings) no use of pre-learned material, personal style of the candidate.) The table below is a summary of all the above-mentioned elements as considered per question:

SHORTCOMINGS OBSERVED IN THE CANDIDATES' WORK

Topic a) The past tenses were accepted as the main narrative tenses, but some candidates went ahead to use the simple present tense.

The topic was very appropriate and current because candidates have each already witnessed or had misunderstandings and reconciliation. The topic obeyed the CBA rules of questioning with three specific instructions given to candidates even though some of them did not take the pain to read and understand the question before writing on it.

For topic b) The past tenses were accepted as the main narrative tenses. Some candidates used the present tense, others began with "passé composé" then switched to "passé simple" without transition. This was sanctioned with a -2T penalty and some others began the essay as if it was a letter, candidates, who did so, were sanctioned with a -4m penalty. Many candidates disclosed their identity instead of using the address given thereby attracting a -4D penalty.

Topic c; The first instruction required candidates to use the present tense in describing Baba's compound. For the second and the third instructions, the passé composé was required here. There was therefore a mixture of tenses attracting penalties where necessary.

- Some candidates began topic a) especially as a letter
- Some candidates spent time recopying the topics,
- Some wrote their essays in English instead,
- Some mixed up both English and French,
- Some others wrote trash while others did not even attempt the essay at all.

On the other hand, there was equally a greater number of excellent candidates who scored 70/80 and above than in the past years.

Notwithstanding the above-mentioned shortcomings, the performance of candidates was much better than in the previous years.

SUGGESTIONS/RECOMMENDATIONS

1. This evaluation pattern "évaluation critériée" be maintained for the subsequent marking of the Ordinary Level GCE and other official examinations.
2. Assistant Chief Examiners and Chief Examiners agreed to take more time to explain to Examiners and Assistant Examiners the idea of « pertinence » and « cohérence » such that marking will be much easier for next sessions.

3. Students should get interested in the study of French language, and acquire recommended text books;
4. French teachers should acquaint themselves with modern teaching and evaluation methods, especially the CBA;
5. Teachers should get their students acquainted with Essay Writing and Translation through regular drilling exercises and prompt corrections;
6. French teachers should refrain from giving their students model essays in class, as some candidates are tempted to memorize material and later reproduce it regardless of the topic proposed;
7. Teachers should endeavour to cover at least 80% of the syllabus;
8. There is a dire need to train more bilingual teachers and post them to areas in need;
9. School authorities should make extra efforts at ensuring that schools have libraries and that the French shelves in such libraries are well stocked;
10. School candidates who perform well in the subject need to be motivated with prizes, if not at certificate level, at least at the level of the various schools;
11. All stakeholders should put their hands on deck to see to it that the present socio-political unrest which has seriously affected the school system comes to an end.

CONCLUSION

Given that candidates keep treating French with so much indifference, it may be helpful to further water down the level of language in the exercises so that they can be better motivated to learn and thereby perform better. Also, the recommendations made at the end of each examination session should be seriously taken into considerations by all authorities in the academic chain and the powers that be. Grammar textbooks should be such that all students can read at home and understand with ease.

0546 SPECIAL BILINGUAL EDUCATION FRENCH

INTRODUCTION:

The Special Bilingual Education French (SBEF), 0546 is made up of three components: Intensive French 50%, Education à La Citoyenneté et à la Morale (ECM) 25% and Education Physique et Sportive (EPS) 25%.

The subject is made up of three papers:

Paper 1: 50 Multiple Choice Questions (MCQ): Weighting=25%;

Paper 2: Either Translation or Essay + ECM+ EPS: Weighting =50%;

Paper 3: Oral Communication: Weighting = 25%.

0546 was administered for the first time in Cameroon during the 2014 O/L examination session and for the eighth time, during the just ended June 2021 GCE O/L examination session.

Paper I was scored by the new electronic equipment acquired by the GCE BOARD. 50 Multiple Choice Questions were in three sections: Section One: Intensive French 20 questions, Section Two: ECM 15 questions, Section three: EPS 15 questions.

Paper II respected the structure mentioned above. Question 1, Intensive French required that candidates should translate *a narrative passage of at least 200 and most 210 words* from English into French on a common disease in Africa (malaria which kills pregnant women and children in African villages and towns). Out of 1281 candidates, 3 candidates were unable to translate the passage and simply copied the English version of the passage.

Question 2, ECM also required that candidates should make a choice between the two proposed topics: dissertation or verification of competences. Topic (a) i.e. dissertation was chosen by 2% candidates and topic (b) i.e. verification des compétences was chosen by 98% candidates.

Question 3 was made up of 20 structural questions on general rules and regulations governing sporting activities in Cameroon and in the world. 82% candidates attempted all the 20 questions and 18% candidates attempted less than 10 questions out of 20.

QUALITY OF QUESTIONS

The quality of the questions was good as they had no typographical and spelling errors, and no errors in printing that could affect the performance of candidates. There were no defects in the rubrics and no consequent effects in candidates' performance resulting from interpretation, ambiguity and misunderstanding.

The ToS (topics, the aims, the objectives, the level of difficulties and the number of questions) was respected in Papers I, II, III.

CANDIDATES PERFORMANCE

Judging from the feel of the trial marking, answers found on the scripts of candidates and from statistics made after B-checking Paper II and Paper III, the general impression we had is that candidates' performance, this year might be better than that of last year. In Intensive French: out of 1281 scripts, actually marked by the Examiners of this component 831 scored a total of 40 and above on 80 as compared to last year where 426 out of 1495 candidates scored 40 and above on 80; in ECM this year, the performance was much better 1073 candidates scored 20 and above on 40 this year as compared to the 550 candidate that scored a total of 20 and above last year while in EPS, 478 candidates scored a total of 20 and above on 40 this session as compared to the 243 candidates who scored 20 and above on 40 during last session. The overall performance in Paper II this year shows that 788 candidates out of the 1281 who actually sat, scored a total of 80 and above marks on 160, last session. This indicates a percentage pass of 61,51% for Paper II, this session compared to 47,56% we had in this paper during last session. We do hope that the scores in Paper I will raise the percentage pass to at least 90%. The best score recorded in Paper II this session is 144 on 160, more than 143 on 160 for the best candidate of the last session. Meanwhile the worst performance is 01 on 160, opposed to 00 on 160 recorded during the last session. It should be noted that 93 candidates have scored marks ranging between 70 and 79 on 160 in this Paper.

In Paper II, some shortcomings of the candidates' work/answers were noticed i.e. 80% of syllabus coverage, no respect of instructions,...etc

We hope that their performance in Paper I will help raise the general percentage pass to about 95%.

PROBLEMS ENCOUNTERED

- ❖ Some adventurers sat for this subject therefore they scored 01 on 160. These candidates did not go through the Special Bilingual Education Programme.

RECOMMENDATIONS

- ❖ Only students involved in the Special Bilingual Programme should sit for this subject.
- ❖ Teachers should ensure 100% syllabus coverage.
- ❖ Weighting for Paper III should be reviewed to read 15% as practical's at ordinary level (Oral Communication) so that Paper II weighting should also be reviewed to read 60% while Paper I should be 25%.
- ❖ Supervisors for Paper III Oral Communication should not assess their students.
- ❖ Recruit four Examiners for 0546 to make sure that the marking is done effectively in 08 days.
- ❖ The number of days for marking exercise review is necessary as more candidates come in each year.
- ❖ Anti-covid 19 barrier measures should be well respected by candidates, teachers, Examiners. The GCE Board should provide gloves, face masks, sanitizers, soap,...etc just as Office du Baccalauréat does.

0550 GEOGRAPHY

INTRODUCTION:

Since the syllabus review conference of April 2011 in Limbe; wherein geography was reviewed, the syllabus developed has been tested for the seventh time. The aims and specific assessment objectives elaborated therein are severally applied in both papers 1 (MCQ) and 2 (essays) as follows:

Knowledge	Comprehension	Application	analysis
57%	30%	10%	3%

From the table above, the examination represented an effective and acceptable assessment of the learning abilities for the examination. Therefore, it offered adequately the opportunities for candidates to exhaustively demonstrate their competencies as in the geographical knowledge and skills. This notwithstanding, the somewhat obvious disparity between quality and quantity of the performance has been trendy over the years. The maximum Score noted in P2 marked by the examiners was 55.33% as weighted. Table 1 shows a general presentation of the range of marks for the candidates.

Table 1: Mark Range Frequency

RANGE OF MARKS	<33	33	34	35	36 – 49	50 – 60	60+
TOTALS	61,956	1,325	1,288	1,142	7,919	1,657	489
PERCENTAGE	80.39	01.72	01.67	01.48	10.27	02.15	00.63

This is further illustrated in figure 1 and 2.

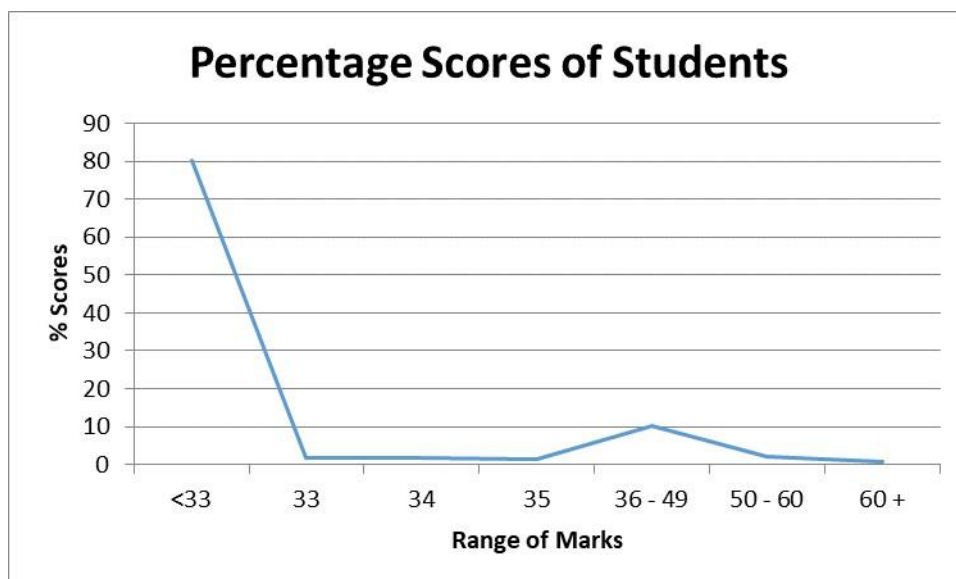


Figure 1: Percentage Scores of Students

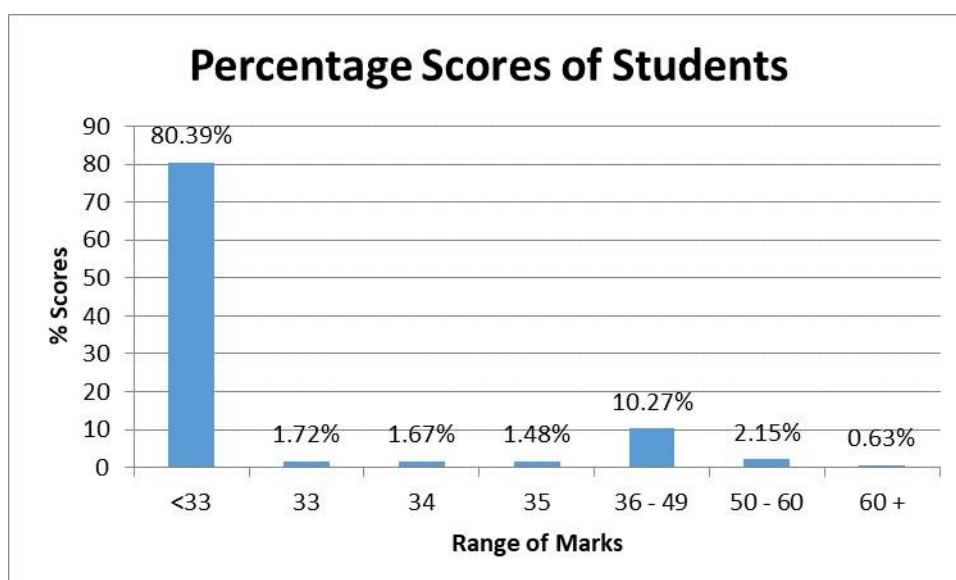


Figure 2: Percentage Range of Marks

Paper1 was marked by the machine. The overall performance of paper 2 was however negatively skewed for the subject as far as this paper is concerned. This trend calls for a syllabus to scale down the volume of material of the current syllabus. It should be noted that the content may not change much but some details which are not relevant will be eliminated.

Paper 1 had 50 MCQs for the candidates to answer all; based on recall of knowledge, comprehension, application and analysis respectively as 66%, 26%, 4% and 4%. As cited earlier, this was marked by the machines of the technical service.

Paper two had seven questions broken up into four sections as specified by the syllabus; out of which the candidates were expected to choose one from each section. Question one (1) was

compulsory and broken up into different parts as in the syllabus. In the same vein the rest of the questions in section B, C, and D were equally broken up into different parts to incorporate the aims, and objectives as specified in syllabus as well as ensuring reliability and content validity. This gave us a total of 26 sub parts. This also was to embrace specific skills on the TOS, as the need arises. Some were further broken up into i, ii, and even iii for the reasons cited above so that in addition, candidates were given maximum opportunities to exemplify their abilities and learning outcomes.

The cross-curricula demand was factorized in the building up of questions in both papers 1 and 2; including mathematics, humanities, social sciences, life sciences as well as environmental preoccupations.

Table 2. Total number of candidates per question attempted

Question Number	1	2	3	4	5	6	7
No Cand. Attempted	73024	39599	28489	33437	50627	16816	54901
% Attempted (Absolute) Quantum	94.75	51.38	36.96	40.09	65.68	21.82	71.23
% Attempted (Relative)	24.68	13.38	09.63	10.96	17.11	05.68	18.56
Rank	1	4	6	5	3	7	2

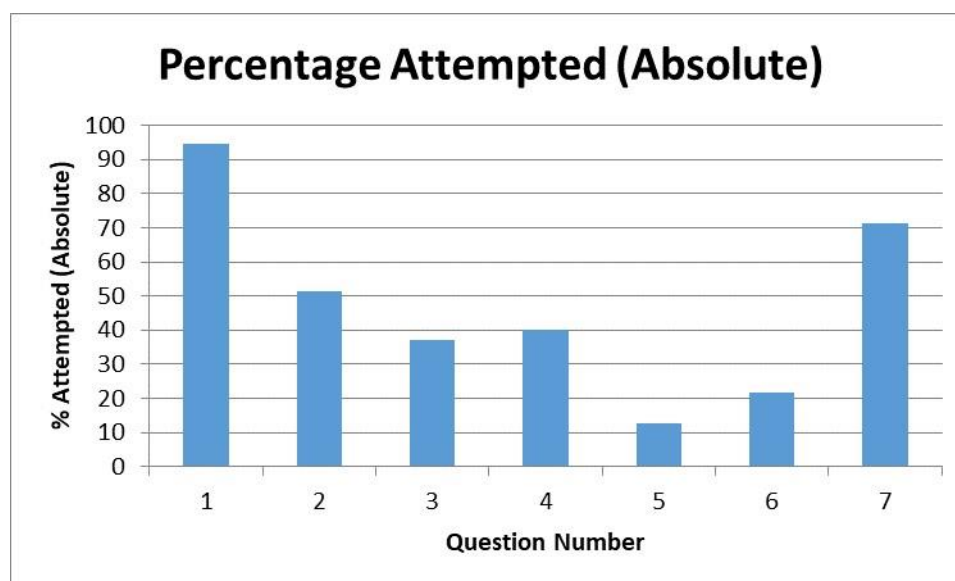


Figure 3. A Column chart of questions attempted in Absolute and Relative terms

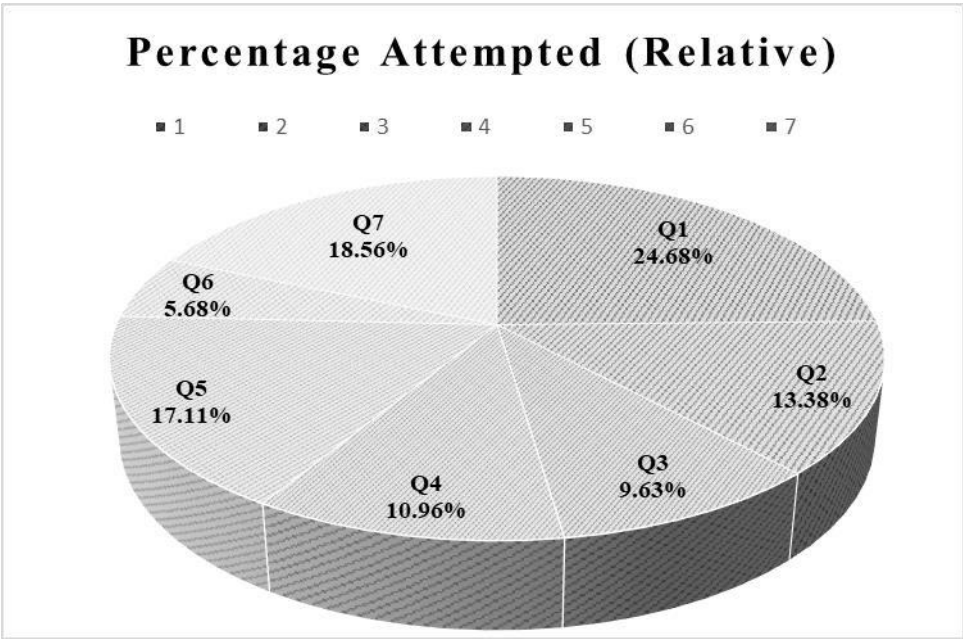


Figure 4. Percentage of questions popularity in relative terms

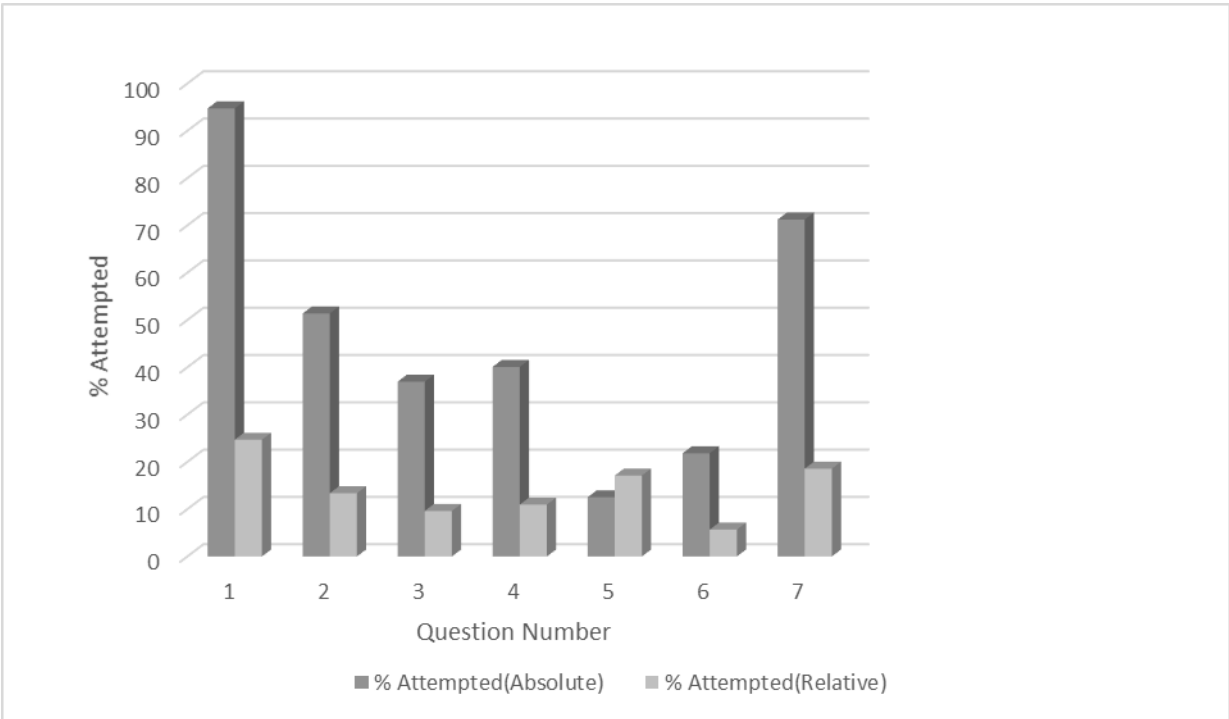


Figure 5: A Comparative Chart on the Attempted Absolute and Relative

From the figures above, it can be noticed that 5.25% of all the candidates who wrote 0550 Geography did not attempt question 1 which was a compulsory question. The situation is slightly worse from compared to the previous year where it was 4.39%.

In Section B, the disparity in the choice between questions 2 and 3 was largely in favour of question 2. This has been the trend and should be diagnosed. In Section C on Human Geography, a similar situation was presented where there was unequal distribution of the questions attempted between 4 and 5. In Section D on Cameroon Geography, the situation between question 6 and 7 shows a great divergent with question 7 being the 2nd most popular question while question 6 is the 6th. This difference from trends in the past where both use to be very popular. This situation needs a careful diagnosis on the part of teachers.

Q No.	SYLLABUS AREA	SKILLS TESTED	LEVEL OF DIFFICULTY	POPULARITY OF QUESTIONS	EXPECTA-TION(S) TASKS	INADEQUACIES IN THE WORK OF CANDIDATES
1a i	Map Interpretation	Comprehension	**	A compulsory question even though only 90% attempted. Yet up to 10% did not attempt	Candidates were expected to describe the nature of the landscape in grid square 9658(map extract of Waddington 1:50,000)	Most candidates who attempted this question could not describe the Landscape. A few about 15% accurately described the Landscape
1 a ii	Map Reading	Knowledge	*	Over 97%	Candidates were expected to state four human features found in grid reference 9856 and the highest point in square 9760 on the map extract	-Majority of the candidates named the features and had good scores -Majority of the candidates could not state the height of the highest point.

1b	Map reading	Application	**	Above 97% of those who attempted question 1 answered this part	Candidates were expected to draw a cross section along northing 60 from 940600 to 020600 and insert certain features.	<p>A good number of candidates were unable to draw a good cross section with annotated features. Majority were unable to give an appropriate title and state the vertical scale.</p> <p>Many copied, enlarged or reduce the portion to half the original scale. However, a few candidates distinguished themselves and earned good marks</p>
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1c	Map Reading	Application	**	Very popular, above 97%	Candidates were expected to state the direction of the church in Coleby and calculate the distance along the electricity transmission line between two given points.	About 25% of candidates who attempted this part of the question were unable to state the direction correctly. A majority of the candidates who attempted the calculation were apt and earned full marks
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1d	Map Interpretation	Comprehension and Analysis	**	Popular, however only 60% attempted.	<p>Candidates were expected to compare the settlement of Waddington and Leadenham under the heading: size, shape and function.</p> <p>Secondly, they were to comment on the distribution of woodland on the map.</p>	<p>Many candidates failed to compare shape and function and were marked down.</p> <p>A majority of candidates could name only woodland types and could not give a description of their location or distribution and as a result earned low marks.</p>
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2a	Weather and Climate	Comprehension	*	95% of all candidates attempted this question answered this section. 4 th most popular	Candidates were asked to distinguish between Weather and Climate	Most candidates did it well and earned full marks, -A few about 30% found it difficult to differentiate between weather and climate especially in terms of area covered.
2b (i)	Physical Landforms	Knowledge	*	About 70% of the candidates attempted this portion of the question.	Candidates were expected to name one erosional and one depositional feature in selected physical geographic milieu to earn maximum marks.	Most candidates could not name the features under the different headings to end full marks.
2b (ii)	Physical Landforms	Knowledge	*	More than 90% of candidates who answered question 2 attempted this section	Candidates were expected to draw one erosional and one depositional feature mentioned in b (i) above	Many candidates presented beautifully drawn diagrams but were unable to properly annotate them. In some cases, they annotated wrongly hence they could not earn the maximum marks allocated.

2c	Weather and Climate	Knowledge	*	Less than 70% of candidate who answered question 2 attempted this part	Candidates were expected to outline the pressure and wind belts of the globe using annotated diagrams	About 40% of candidates who attempted this part of question 2, diagrammatic presentation was a problem. In most cases names of winds were wrongly written while others were not tied to the correct locations.	S w n b
2d	Environmental Hazards	Knowledge	*	Very popular part of the question	Candidates were expected to name two human causes of global warming	About 80% of candidates who attempted this part of question 2, gave correct answers and went ahead to provide explanations.	
2 e	Environmental hazards	Knowledge	*	Very popular. More than 90% who answered question 2 attempted this part.	Candidates were expected to describe three ways by which people are adapted to earthquake areas.	About 60% of the candidates got mixed up. They thought staying away from these areas was a good adaptation and as such gave the disadvantages of staying in earthquake free zones. A good number were unable to interpret the question and were marked down.	

3a	Geomorphology (Processes of denudation)	Comprehension	*	The question was less popular in favour of Q2 in the same section. Only 09.63% of candidates answered this question.	The candidates were expected to differentiate between physical and chemical weathering	About 70% of candidates who attempted this question were unable to come out with a proper distinction and were marked down
3b i)	Meteorology (Weather and Climate)	Knowledge	*	Most popular part of the question. More than 90% of candidates who attempted this question answered this part.	Candidates were expected to name the instruments used in measuring Weather elements given on a table.	More than 90% of the candidates named the instruments correctly and scored maximum marks

3b ii	Meteorology (Weather and Climate)	Application	**	Only about 20% of the candidate answered the question	Candidates were expected to use Temperature and rainfall data given to plot a Climograph.	Most candidates were unable to plot the graph. More than 40% . drew two vertical lines with unrelated graduation pertaining to the rainfall and temperature data.
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						Most candidates scored poorly	
3c	Geo-Hazards (volcanic eruption)	Comprehension	* *	More than 80% of candidates who answered the question attempted this part	Candidates were expected to briefly explain why volcanic areas have many problems yet many people are attracted to live there.	A few candidates gave correct explanations to earn maximum marks. Many misinterpreted the question and instead wrote on problems associated with volcanic areas.	
3c	Hydrological (water cycle)	Knowledge	* *	Less than 80% of candidates who answered the question attempted this section of the question.	Candidate were expected to name stores and outputs of the hydrological cycle	About 40% of candidates were able to perform this task.	M i u i (a

Only 36.96% of the Candidates answered question 3. It was less popular than Q2 in the

4a	Agriculture	Knowledge	*	Popular question. Attempted by 40.09% of all candidates for the exam in absolute terms	Candidates were expected to state the similarities between plantation and extensive mechanised Farming.	Most candidates were able to correctly bring out the similarities and were scored maximum	
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4 b	Resource Exploitation	Knowledge	*	A less popular part of the question	Candidates were expected describe the problems facing fishing and forest resource exploitation in the world.	A majority of the candidates over 75% gave the correct answer and earned maximum marks.
4 c	Urban Geography	Application of Knowledge	*	Less popular part of question.	Candidates were expected to state the reasons for rapid urbanisation since 1950.	The few candidates who attempted this part of the question were able to correctly state the reasons and were marked to maximum.

4 d	Industrial development	Application of knowledge	* *	Very Popular part of question.	Candidates were expected to account for low level industrialisation in LICs.	A majority of candidates 70% who attempted this section answered it correctly and scored maximum.
5a	Environmental issues Settlement (urban problems)	Comprehension	* *	Relatively popular question with about 50% of the candidates answering. It is the 3 rd most popular question.	Candidates were expected to match elements in column one to those in column two.	A few could match well and so scored all the marks. Some mixed up the problems and solutions; some just copied the question again and so were marked down.

5b i)	Global warming	Knowledge	*	Popular section of the question.	Candidates were expected to describe two ways by which industrial growth brings about warming e.g., increase emission of CFCs.	About 40% of the Candidates answered this question properly. Many candidates were marked down because they could not limit the causes of global warming to industrial growth but rather gave the general causes of global warming such as bush fires, volcanic eruption etc.
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5 b ii	Population	Comprehension	* *	Attempted by many candidates	Candidates were expected to state from the table given, which of the two countries is an AIC and give reasons for the answer.	About 65% of the candidates could identify that (B) is an AIC and so scored the 1 mark allocated. However more than 70% could not work with the data to give the reasons. They rather gave general characteristics of AICs and were marked down
5c	Transport	Knowledge	*	Attempted by many candidates, about 65% of the candidates.	Candidates were expected to outline two problem and two solutions of road transport development in LICs	Many candidates about 65% came up with the good answers and scored maximum marks. Some misunderstood the question and stated problems of road transport only.

6a	Cameroon geography (locating and naming aspects on the map)	Application	*	Very unpopular With only 05.68% of the candidates attempting this question	Candidates were expected to locate and name physical and human features on the outline map of Cameroon	About 80% of those who attempted this question correctly located the features. However, most could not locate Bamenda and Buea correctly on the map. A few wasted time in drawing the map instead of inserting the given features.
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6b	Cameroon (climate)	Comprehension	*	Same as above	Candidates were expected to describe the climatic characteristics of the equatorial region of Cameroon under rainfall and temperature.	Poorly attempted. Candidates were unable to describe the characteristics and were marked down.
6c i)	Cameroon Secondary Sector (Agriculture)	Comprehension	*	Only 15% of the candidates attempted the question answered this part of the question.	Candidates were expected to describe two reasons why livestock rearing is highly practised in the northern part of Cameroon.	A good number of the candidates who attempted this part of the question could give the reasons
6c ii)	Cameroon tertiary sector	Application of knowledge	*	Same as above	Candidates were expected to describe the ways that the government of Cameroon has put in place	Candidates failed to what the government is doing to emerge. They instead dwelled on what the government should do

					to emerge in 2035	
7a	Cameroon Geography	Application of knowledge	*	Very popular question with 71.23% of the candidates answering	<p>Candidates were expected to locate and name on an outline map of Cameroon the following:</p> <ul style="list-style-type: none"> -Towns of Bamenda and Buea. -One area of sparse population e.g., Adamawa area. -A forest reserve e.g., Dja forest reserve, Campo etc. -One international airport e.g., Douala, Yaounde and Garoua -One area where mining of oil, petroleum takes place e.g., Bakassi peninsular. 	<p>Most of the candidates who attempted this question could not locate and name the aspects as expected. Some could locate on the map but did not name. Instead copied what was given on the question paper e.g., candidates shaded the Adamawa region for an area of sparse population instead of naming as the Adamawa Plateau, still named it “area of sparse population”.</p> <ul style="list-style-type: none"> -Location of Buea and Bamenda towns were poor. Some shaded all the NW and SW Regions and named them Buea and Bamenda. -For mining of petroleum, many located and named Douala and Limbe. -Some candidates mixed aspect of question 6 and 7.

7b		Comprehension	*	Very popular	to give two reasons for low population density in the area located on the map e.g., for Adamawa region like -Poor soils for crop cultivation. -Main activity is pastoral nomadism. -Historical factor of outward migration because of wars etc.	vague answers such as -lack of capital -low per capital income -low standard of living -low technology -Low level of education. Such candidates were marked down.
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7c	Urban problems	Comprehension	*	Popular	Candidates were expected to describe two problems common to Cameroon towns today such as water shortage, traffic congestion, electricity shortage, housing problems, high crime waves, high unemployment rate, waste management etc. Candidates were expected to state the attempts made by the government to solve the problems in (Ci) above e.g.	Many candidates could not describe the problems. They rather talked of - Corruption -Over population -Accidents In other cases, the solutions were not tied to the problems. -Many candidates who described the problems could not state the solutions to the stated problems.
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					<p>-Traffic congestion: Widening and construction of new roads</p> <p>-Water shortages: Creation of boreholes and building of more reservoirs. -Waste management: engage to evacuate waste from streets (HYSACAM)</p> <p>-Electricity shortage: Development of new sources e.g., solar energy etc.</p>	
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7d	Developmental issues (Government intervention)	Application Knowledge	**	Popular	Candidates were expected to describe what government is doing in the areas of manufacturing industries, energy and minerals in preparation to become an emergent state in 2035.	Many candidates listed factors which favours the location of industries such as power, raw materials, transport etc and were marked down.
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555 GEOLOGY

1) AN OVERVIEW

A) INTRODUCTION.

The content of the examination was within the scope of the syllabus. It was composed of two papers (Paper 1 and 2). Paper 1 consisted of 50 MCQs and candidates were expected to answer all the questions while Paper 2 consisted of 7 questions (6 Essay questions and one school-based Assessment Question). Candidates were to answer two questions from Section A and B, question 7 in Section C was compulsory. The marking guides were detailed and easy to apply.

B) PERFORMANCE EVALUATION

The syllabus coverage for Paper 1 and Paper 2 was 100%. The general performance for Paper 2 was average.

2) QUESTION BY QUESTION ANALYSIS.

PAPER 2

About 100 % of the syllabus was covered. The performance was average. Some candidates did not follow the rubrics of the examination.

SECTION A

QUESTION 1

It was a popular question in the entire examination and in Section A. Most of the candidates scored above 50%. However, many candidates who attempted the question, were unable to identify the various types of slow mass movements which includes soil creep, scree or talus movement, earthflow and solifluction. Also, most of the candidates could not differentiate the outer core from the inner core based on physical state and composition. The outer core is liquid while the mantle is solid or plastic in some portions. In terms of composition, the outer core is nickel, iron and sulphur while the mantle has been differentiated from it, in terms of rock composition; the mantle is composed of peridotite and eclogite, mineralogical composition; the mantle is rich olivines, pyroxenes and garnet and lastly chemical composition; the mantle is made up of silicates, polymorphs of silica such as stichovite. Furthermore, most candidates defined a seismograph instead of a seismogram which is a record of the vibrations or earthquake waves produced by a seismograph. And also, some candidates could not identify the seismic wave that causes the greatest damage which are the surface or the love waves (Love and Rayleigh waves).

QUESTION 2

It was the most popular question in the section. More than 90% pass was recorded for candidates who attempted the question.

QUESTION 3

It was an unpopular question and the few candidates who attempted the question had above 50%. Many candidates however could not differentiate between a solid angle and a crystal edge. A solid angle is the line of intersection between 3 or more faces while an edge is a line of intersection between 2 crystal faces. Also, some candidates drew a seismograph for a seismogram.

SECTION B

QUESTION 4

It was the most popular question in the entire examination. Candidates recorded more than 65% pass. However, many candidates were confused with the term lava and magma and also failed to relate the different rock types to their corresponding magmas. Lava is molten rock material on the surface of the earth while magma is molten rock beneath the earth's surface. Basalts are formed from the fast cooling of basic lava while granites are formed from the slow cooling of acid magmas.

QUESTION 5

It was a popular question, with candidates scoring more than 70%. However, most candidates found it difficult to describe the term gneissose which is a textural term which describes medium grained rocks with a preferred orientation or parallel alignment of platy minerals and schistose which is a textural term which describes coarse grained rocks showing alternating light and dark bands.

QUESTION 6

It was the most unpopular question in entire exams. The few candidates who attempted the question scored less than 50%.

RECOMMENDATIONS

In other to improve on the performance of candidates during the examination, teachers are advised to ensure the following;

- To simplify the lessons for the better understanding of learners.
- Lessons should be taught with teaching aids to facilitate learner's understanding of concepts.
- They should be able to delimit Ordinary level from Advanced level materials during teaching.
- To own a copy of the teaching and examination syllabuses for OL Geology.
- To ensure that students follow the rubrics for the exams.
- They should drill students on how to answer questions.
- Teachers should bring out clear differences that exist between key geologic terms such as seismogram/ seismogram, focus/epicenter, solid angle/ crystal edge etc., and also differences in the physical states and composition of the earth's layers.
- Examiners should help other teachers with the new knowledge they have acquired in the marking exercise. They should also come out with a text book for Geology for forms 4 and 5. This will help simplify the teaching of the subject and create a clear-cut boundary between the demands of the teaching syllabus for Ordinary and Advance Levels.
- Parents should endeavor to buy text books for their children.
- Principals should supply the school library with Geology text books.

CONCLUSION

Generally, the examination had the same strength with that of the 2020 session.

560 HISTORY

1. INTRODUCTION: How the Examination presented itself to the Table of Specification (TOS)-Overall

2.PAPER BY PAPER ANALYSIS INDICATING TOS

PAPER I (50 QUESTIONS)

TOPICS			AIMS				OBJECTIVE (ABILITY TESTED)								DIFFICULTY LEVEL		
NO	TESTED	%	A	B	C	D	KN	%	CO	%	APP	%	AN	%	*	**	***
24	24	100	28	07	10	05	27	54	20	40	03	6	00	0	25	22	03

Analysis: The paper was generally candidate friendly, given the minimal incidence of analysis based questions, as more emphasis was laid on Knowledge, comprehension and application and difficulty level three questions were just 3. The paper also reveals 100% scheme coverage as questions were set on all 25 topics of the syllabus. The entire syllabus aims have been addressed by the paper.

PAPER 2 (11 QUESTIONS)

TOPICS			AIMS				OBJECTIVE (ABILITY TESTED)								DIFFICULTY LEVEL		
N O	TESTED	%	A	B	C	D	K N	%	C O	%	A P	%	A N	%	*	**	***
24	14	58.3	07	10	03	01	10	35.7	09	32.1	05	17.8	04	14.2	1	4	05

The paper was not very friendly to candidates given that out of 10 questions on choice, 5 were of the third degree difficulty level.

3. QUESTION BY QUESTION ANALYSIS –PAPER 2

Question No.	EXPECTATIONS	CANDIDATE REACTION	RESULTS OBTAINED
*1A and *1B	Stimulus questions on choice requiring straight forward and precise answers. Questions usually very clear with tasks representing the various levels of Bloom' Taxonomy. Questions usually broken into many sub parts/questions.	Most candidates here gave preference to *1A.The questions was generally fairly attempted .	Popular question with average candidates scoring between 10-12/20 marks. The best score in the question was 20/20.
2	Explain how and why	Very popular question	Very few

	<p>Germany was able to annex Cameroon by 1884 and trace how she was defeated and lost Cameroon by 1920.(7/7/6marks)</p> <p>How Germany annexed Cameroon</p> <p>A four-part question requiring that candidates: Explain how Germany was able to annex Cameroon. Explain why Germany was able to annex Cameroon. How Germany was defeated in Cameroon, How Germany lost Cameroon</p>	<p>misinterpreted by a majority of candidates to mean: (a)Reasons for German annexation of Cameroon in the first part. (b)Reasons for the defeat of Germany in and the last part ignored by a majority of the candidates.</p>	<p>candidates answered the question as required .A majority of the candidates performed below average in spite of serious moderation and modification of the mark guide and mark allocation.</p>
3	<p>What events between 1914 and 1922 led to the establishment of the British and French rule in Cameroon under the League of Nations as Mandate territories? How and why did Britain decide to administer her own portion of Cameroon as part of Nigeria?(7/7/6marks)</p> <p>A three-part question which demands that candidates: Describe events leading to the establishment of the League of Nation's mandate in Cameroon under the British and French administrations. How Britain administered her portion of Cameroon as part of Nigeria. Reasons why Britain administered her portion of Cameroon in association with the Eastern Region of Nigeria</p>	<p>Question not very popular. Well interpreted by candidates the minority of candidates with very sketchy answers.</p>	<p>Very poor results for candidates.</p>

4	<p>4. Why did President Ahidjo abolish the Federal Constitution in 1972? What changes were introduced in Cameroon and how did the Unitary Constitution affect West Cameroon?(7/7/6marks)</p> <p>Question required that candidates:</p> <p>Give reasons for President Ahidjo abolishing the Federal constitution in 1972.</p> <p>Give the changes which were introduced under the unitary state.</p> <p>Explain how the changes introduced under the unitary constitution affected West Cameroon.</p>	Question not popular and attempted by an insignificant proportion of candidates.	Average results obtained.
5	<p>Describe the contributions of the following to the establishment of Colonial Rule in Africa.</p> <p>(a) Activities of a King Leopold II in the Congo Basin</p> <p>(b) The Berlin West Africa Conference</p> <p>(c) African Traditional Rulers</p> <p>(d) Scientific and Technological development. e.g. transport, medicine, etc.</p> <p>Description of the contributions or role of the:</p> <p>(a) activities of King Leopold II in the Congo Basin towards the establishment of colonial rule in Africa.</p> <p>(b)The contributions of the</p>	This was a popular question though poorly responded to. The candidates centered their responses mostly on the Berlin West Africa Conference, giving the resolutions taken. They were hardly able to make the analysis and come out with the consequences of the various actions Leopold took in the Congo took in the Congo Basin which actually sparked the scramble. Some candidates were not able to cite the roles played by the traditional rulers apart from their treaty	Performance was generally poor despite all moderations on the mark guide and mark allocations. On the whole, it was a poorly tackled question with a generally poor performance,

	Berlin West Africa Conference towards the establishment of colonial rule in Africa (c) the role played by African traditional rulers in furthering colonial implantation (d)Ways in which scientific and technological developments facilitated the establishment of colonial rule in Africa.	signing roles.	
6.	<p>6. How and why did a Civil War break out in the 1960s either in (a) The Congo or (b) Nigeria? What was the outcome of the war in the country chosen? (6/7/7 marks)</p> <p>(a) –How the civil war in the Congo broke out in the 1960s (process or stages) -Why the civil war broke out in the Congo in the 1960s (reasons/causes) (b)-How a civil war broke out in Nigeria in the 1960s (b) –Causes of the Nigerian Civil war *Consequences or effects of any of these civil wars.</p>	Not very popular question .Very few candidates selected it and very few did well in it.Most responses to this question were more or less an adventure.	The outcome was a very poor performance, suggesting that the section of the syllabus is either poorly taught or not taught all.
7	<p>7. Outline the origin, aims and successes of the OAU since its creation in 1963 as a regional organization. Why was the OAU replaced by the AU in 2002?</p> <p>(5/5/5/5 marks)</p> <p>Outline of: -origins, aims and successes of</p>	Most of the time the origins were ignored or very poorly tackled. The aims of the OAU were well answered. The successes of the OAU were also well answered compared to the origins. An easy to understand question though the candidates performed	Though not a very popular question, the candidates who attempted it made some of the best scores of section B. The last part of the questions did not have good scores as candidates seemed less informed as to

	<p>the OAU since creation in 1963.</p> <p>-Reasons why the OAU was replaced by the AU in 2002.</p>	below expectation.	why the AU replaced the OAU.
8	<p>What were the causes of the First World War? How was Germany treated at the end of the war? (8/12) (10/10) marks</p> <p>-State the causes of the First World War</p> <p>-Punishment /treatment meted out to Germany at the end of the war.</p>	<p>Outlined the causes of the First World War and gave the terms of the treaty of Versailles but in a few cases candidates focused on the general causes of the First World War.</p>	<p>Many candidate made a fair attempt in the first part of the question.However in the second part some were limited since they restricted themselves only to the terms of the Versailles Treaty . It was a fairly attempted question by all.</p>
9.	<p>9. Why did the USA enter the Second World War in 1941? What contribution did it make to the defeat of the Axis powers? What were the consequences of this defeat?(7/7/6marks)</p> <p>Candidates to bring out the reasons why the USA entered the Second World War.</p> <p>-State the contributions the USA made towards the defeat of the Axis Powers.</p> <p>-Consequences of this defeat on the Axis powers,</p>	<p>-Candidates gave reasons for the USA entry in the Second World War.</p> <p>-Indicated their contribution to the defeat of the Axis Powers.</p> <p>-Rather brought out the general consequences of the Second World War.</p>	<p>Though many candidates had a good approach to the question, they were limited in the content of their answers.</p> <p>This limitation was equally evident in the second part of their answers but in the third part of the question, candidates had a wrong approach to the question as they interpreted it to be the general consequences of the Second World War.</p>
10.	<p>10. Describe the organisation of the United Nations Organisation. What part</p>	<p>Question well understood and fairly answered accept for a</p>	<p>-Described the origins of the UNO.</p> <p>-Explained the roles</p>

	<p>have any three of the following United Nations Agencies played in the development of African States since 1970 in improving the welfare and wellbeing of the people?</p> <p>(a) FAO (b) UNICEF (c) UNESCO (d) WHO (5/5/5marks)</p> <p>-Candidates expected to describe the organization(structure) of the UNO.</p> <p>-To explain the part played by any three of the four UN specialized agencies listed in the development of Africa since 1970.</p> <p>-To demonstrate how their activities have on the wellbeing of the people.</p> <p>-To give the full meaning of the abbreviations.</p>	<p>few writing their answers based on guess work.</p>	<p>played by the specialized agencies selected.</p> <p>-Fairly well answered question.</p>
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SECTIONS	Average Performance
Cameroon	7/20
Africa	6/20
World	6/20

POSSIBLE CAUSES OF POOR PERFORMANCE BY CANDIDATES

1. Hostile political climate unfriendly to GCE course work. Candidates who presented themselves for the examination were admitted into form one in 2016 and in the English speaking regions of the country, classes were boycotted and resumed timidly in major towns with much interruptions.
2. Over speculation and specialization. Most candidates don't read recently tested topics. Question 10, a repeat topic of June 2019 was poorly attempted.
3. Very broad syllabus especially in Africa and World
4. Limited teaching periods, most often two hours
5. Inadequate teaching staff

6. Absenteeism and involuntary absences of teachers because of threats
7. Reluctance of colleges to sponsor History teachers to seminars
8. Overloading of History teachers with Citizenship, Geography, etc. leading to shallow presentation of facts
9. Poor teaching methods
10. Sequence systems with many weaknesses especially reluctance of students to read what had been tested

4. RECOMMENDATIONS/SUGGESTIONS FOR IMPROVEMENTS

1. Teachers and students are encouraged to buy the official textbooks recommended by the Ministry for Secondary Education and the GCE Board
2. History periods in colleges in the examination classes should be at least the three periods a week
World History should start in Form 4
3. Teachers should be assigned in each of the three sections
4. Teachers should not be overloaded with the teaching of all the sections in History and related subjects like 5.Citizenship, Geography and Economics.
6. Teachers should always drill students on Questions and Answers.
7. Workbooks should be used alongside the main text.

0562 CITIZENSHIP EDUCATION

INTRODUCTION

The 2021 Citizenship Education Ordinary Level GCE Examination like in the past years comprised 2 papers. Paper 1 consisted of 50 Multiple Choice Questions (MCQs) while Paper 2 consisted of one Stimulus Question and nine essay questions, for candidates to attempt any three, making sure they are chosen from each of the three sections. The weighting of papers one and two stood at 40% and 60 % respectively. However, only Paper 2 was manually scored by examiners.

A. PAPER BY PAPER ANALYSIS INDICATING TOS

I) PAPER ONE

The Table of Specifications Reveals that all the conditions for test validity were fulfilled as presented below

Q / N°	SYLLABUS TOPIC NUMBER	SYLLABUS AIM						OBJECTIVE TESTED				LEVEL OF DIFFICULTY			TOTAL NUMBER OF QUESTION PER SECTION
		A	B	C	D	E	F	KN	CO	AP	AN	*	**	***	
1	1.1	√								√			√		SECTION A:15
2	1.2					√		√				√			
3	1.3	√						√				√			
4	1.3.3		√								√			√	
5	1.3.4	√							√				√		
6	2.1		√							√			√		
7	2.5	√						√				√			
8	2.7		√					√				√			
9	2.9	√							√				√		
10	3.1.1	√						√				√			
11	3.1.5		√						√				√		
12	3.2.2			√				√				√			
13	4.2						√			√			√		
14	4.3		√							√			√		
15	4.4	√						√				√			
16	5.1	√							√				√		SECTION B:25
17	5.1	√							√				√		
18	5.2	√							√				√		
19	5.2			√				√				√			
20	6.2		√						√			√			
21	6.1		√						√			√			
22	6.2						√			√			√		
23	6.2						√	√					√		
24	6.3					√			√				√		
25	6.3			√				√					√		
26	7.1					√		√				√			

27	7.2					√					√			√		
28	7.3	√						√				√				
29	7.4	√						√				√				
30	7.6	√						√				√				
31	7.6	√						√				√				
32	7.7	√									√				√	
33	7.8					√					√				√	
34	7.9			√					√					√		
35	7.10					√			√					√		
36	8.1			√				√				√				
37	8.2	√									√				√	
38	8.3			√						√				√		
39	8.4						√			√				√		
40	8.5					√			√					√		
41	9.1				√				√					√		
42	9.2				√				√					√		
43	9.3				√			√				√				
44	10.3				√				√					√		
45	10.4				√					√				√		
46	10.7						√			√				√		
47	11.2				√						√				√	
48	10.3					√		√				√				
49	12						√	√				√				
50	12						√			√				√		
TOTAL	12	16	07	06	06	08	07	19	15	10	06	19	25	06		50
%	100	32	14	12	12	16	14	38	30	20	12	38	50	12		100%

**SECTION
C:10**

The above table can equally be summarized thus:

CLASSIFICATION BY TEST OBJECTIVE			CLASSIFICATION BY LEVEL OF DIFFICULTY			
OBJECTIVE	%	CUMULATIVE	DIFFICULTY	FACILITY LEVEL	%	CUMULATIVE
Knowledge	38	38	*	High	38	38
Comprehension	30	68	**	Average	50	88
Application	20	88	***	Low	12	100
Analysis	12	100				

-This paper reveals 100% scheme coverage as questions were set on all 12 topics of the syllabus while respecting the quota for each topic. The entire syllabus aims have equally been addressed by the paper.

-This paper was fairly less candidate friendly, given that 3 stars' questions went beyond the prescribed 5% threshold, to 12%. The slight increase in the 1 star questions from 35% to 38% did some slight balancing of the question equation.

II) PAPER TWO

QU ES- TION N ^o	TO PIC S	AIM						OBJECTIVE/A BILITY TESTED				DIFFICUL TY LEVEL			N ^o OF TOPICS COVERED	
		A	B	C	D	E	F	K N	C O	A P	A N	*	**	** *	PER QUES TION	PER SEC TION
1	1,3,6						√				√		√		03	03
2	1	√						√				√			01	03
3	2	√							√				√		01	
4	4		√								√			√	01	
5	6		√						√			√			01	03
6	7					√				√			√		01	
7	8			√					√				√		01	
8	9				√						√		√		01	03
9	10						√		√			√			01	
10	12						√		√				√		01	
TO TA L	10 out of 12	02	02	01	01	01	02	01	05	01	03	03	06	01	10 out of 12	10 out of 12
%	83.3 %	20 %	20 %	10 %	10 %	10 %	20 %	10 %	50 %	10 %	30 %	30 %	60 %	10 %	83.3%	

This paper was within the reach of most average candidates for a good number of reasons:

- Despite the presence of 30% of questions of analysis on the paper, 50% of the paper tested comprehension and high and average facility questions cumulatively accounted for 90% of the exams.
- Secondly, because the stimulus question is compulsory, targeting just one topic was avoided in preference for three topics (1, 3 and 6). This was intended to spread the risk of floppy teaching and poor syllabus coverage by candidates, with the intention of increasing their chances to pass.

B. QUESTION BY QUESTION ANALYSIS INDICATING TOS

1. FREQUENCY OF QUESTIONS ATTEMPTED BY CANDIDATES
(a) General Education Candidates: 4003 Candidates Sampled

Q N°	FREQUENCY OF ATTEMPTS AND SCORES												Rank by Succe ss Rate
	14 to 20	12 to 13	9 to 11	7 to 8	5 to 6	0 to 4	Total Pass Scores (Range: 09 – 20)		Total Fail Scores (Range): 00 - 08		Total N° of Attempts Per Question out of 4003 candidates		
							N°	%	N°	%	N°	%	
1	1097	897	1167	462	220	160	3161	78.9	337	21.1	4003	100	1 st
2	402	467	964	707	467	430	1833	55.1	642	46.7	3437	85.9	3 rd
3	12	08	47	67	57	117	67	21.7	107	79.9	308	08.4	7 th
4	30	25	40	45	40	102	95	34.7	75	66.4	282	07.1	5 th
5	685	485	736	467	317	300	1906	62.9	434	36.9	2990	74.8	2 nd
6	03	00	15	37	57	75	18	09.8	68	90.7	187	04.7	10 th
7	43	67	175	202	197	202	275	35.3	239	67.7	893	22.1	4 th
8	33	87	310	317	327	530	430	26.8	470	73.2	1604	40.1	6 th
9	10	10	82	120	207	525	102	10.7	341	89.3	954	23.9	9 th
10	08	29	97	62	177	780	134	11.1	408	88.9	1153	28.7	8 th
TO T	2323	2075	3633	2490	267	3247	8031	50.7	3122	49.3	1581 1	100	10
%	14.7	13.1	22.9	15.7	13.1	20.5	51.1		48.8		100		

From the 2021 question frequency table above, the following conclusions can be drawn:

Not only were questions 1, 2 and 5 the most popular, but they were equally very determinant in the success

rate as the least of them scored above 55%, which is very healthy for the exams.

In terms of sections, leaving out question 1 which is compulsory, section B seems to have produced 2 very popular questions (5 and 7) though question 7 happened to be a worry to most candidates.

Question 6 was literally abandoned by candidates, most probably because question 5 was within their reach. This was the least attempted question in the paper.

Though question 8 was more popular in Section C, candidates seemed to have fairly spread their chances in this section as the discrepancy in attempting the three questions was very minimal. This indicates variation in the questions strengths over the years.

A high incidence of rubric offences in sections A (2122 attempts) and B (1947 attempts) were also registered where many candidates attempted more questions than required, to the

detriment of Section C, where less than the required number of questions were attempted. The peculiar problem of low syllabus coverage in this section by both teachers and students is evident.

Concerning technical education, statistics compiled from a sample of 1538 candidates show an approximately the same picture as seen on the table below.

(b) Technical Education Candidates: N° of Candidates Sampled = 1538

Q N°	FREQUENCY OF ATTEMPTS AND SCORES												Rank by Succe ss Rate
	14 to 20	12 to 13	9 to 11	7 to 8	5 to 6	0 to 4	Total Pass Scores (Range: 09 – 20)		Total Fail Scores (Range): 00 - 08		Total N° of Attempts Per Question out of 1538 candidates		
							N°	%	N°	%	N°	%	
1	235	275	409	288	167	164	297	59.6	201	40.4	1538	99.8	1 st
2	15	27	145	272	365	576	61	13.5	392	86.5	1400	90.6	3 rd
3	00	12	13	13	55	115	08	11.6	59	88.1	208	13.4	5 th
4	00	00	06	00	10	62	02	08.0	23	92.0	78	04.8	6 th
5	46	43	139	168	213	400	74	22.6	253	77.4	1009	65.4	2 nd
6	03	09	13	35	43	141	08	12.4	70	89.7	241	15.6	4 th
7	00	04	10	47	72	245	04	03.3	118	96.7	378	24.4	9 th
8	00	00	03	42	118	347	03	00.6	164	99.4	511	33.0	10 th
9	00	08	11	15	50	175	05	06.0	78	94.0	259	16.6	7 th
10	03	07	12	28	65	341	07	05.0	140	95.0	456	29.4	8 th
TO T	98	124	245	294	375	829	467	23.8	1498	76.2	6078	100	10
%	05.0	06.3	12.5	14.9	19.1	42.2	23.8		76.2		100		

The most important message drawn from the table is a marked improvement over the 2020 performance of Technical candidates in this subject, though the success rate remains dismal. The few technical teachers who partook in last year's marking might have been very instrumental

The success rate of 59.6 % in question 1 was quite laudable, despite the catastrophic performance in questions 7, 8, 9 and 10. Question 8 particularly singled out itself as that with the worst success rate with only 3 out 511 candidates scoring an average pass.

C. CLASSIFICATION OF CANDIDATES BY GRADE

(i) General Education Candidates

A total number of **33.421** candidates were considered, representing **62.41%** of the total number of candidates who sat for the exams, with a success rate of **43.7%** registered in paper 2.

Remarks		Brilliant	Very Good	Good	Average	Below Average	Poor	Very Poor	TOTAL
Mark Range		65+	56-64	45-55	35-44	30-34	25-29	00-24	80
Number of Candidates	Per Range	42	1.015	4.489	9.065	6.426	5.172	7.212	33.421
	Cumulative	42	1.057	5.546	14.611	21.037	26.209	33.421	
%	Per Range	0.1	3.0	13.4	27.1	19.2	15.5	21.6	100
	Cumulative	0.1	03.2	16.6	43.7	62.9	78.4	100	
Bottom Candidates	Total	----	----	----	----	18.810			----
	%	----	----	----	----	56.3			----

The best General Education candidate scored **73** out of 80, recorded by candidate N° **P101266**, while a good number scored zero, amongst whom N° 789069.

The overall performance in paper 2 has also improved from **21.17%** in the previous year to **43.7%** this year, giving a progression rate of **18.17%**.

(ii) Technical Education Candidates

The rating of 3697, representing 85.3% of the total number of candidates revealed an overall success rate of 12.8% in paper 2 as shown below.

Remarks		Brilliant	Very Good	Good	Average	Below Average	Poor	Very Poor	TOTAL
Mark Range		65+	56-64	45-55	35-44	30-34	25-29	00-24	80
Number of Candidates	Per Range	01	10	76	388	400	562	2260	3697
	Cumulative	01	11	87	475	875	1437	3697	
%	Per Range	00.02	00.3	02.0	10.5	10.8	15.2	61.1	100
	Cumulative	00.02	00.3	02.3	12.8	23.7	38.9	100	
Bottom	Total	----	----	----	----	3222			----

Candidates	%	----	----	----	----	87.2	----
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The best Technical Education candidate scored **63** out of 80, recorded by candidate N° **P443960**, while a good number of zeros were equally recorded, amongst which N° P917999. From a zero pass last year, the success rate for Technical candidates this year is estimated at not less than a double digit.

REMARKS, SUGGESTIONS AND RECOMMENDATIONS

From the candidate's approach to some questions, it is evident that teachers have to Sufficiently invest in drilling their students on techniques of question interpretation. From the mark guides of some examiners, it was evident that they themselves need to be drilled on that. Some teachers are fond of listing points in their notes, an attitude which their students carry into the GCE hall and lose considerable marks.

Teachers should make every effort to invest in proper syllabus coverage, especially section C. It is the section responsible for massive failure of most candidates in this subject. Because Citizenship Education touches all the social science subjects, History, Geography, Economics and Philosophy teachers should all put their hands on deck to ensure a thorough drilling of their students.

Some candidates, because of familiarity of certain topics to real life situations erroneously tend to give little time to their preparation and go ahead to attempt questions from the said topics irrespective of their difficulty level. Many candidates have met their Waterloo in the paper because of this erratic action. Teachers should advise their students against this.

COVID-19 and the two-shift system it has imposed in many thickly populated schools equally had a devastating effect on syllabus coverage due to reduction in number of teaching hours. Citizenship Education is not tested in the Advanced Level so, some school officials seem to treat it as a subsidiary subject. After testing it for six years at the O/L, it would be good that the GCE Board considers doing same at the A/L.

Students who keep away from Citizenship Education lessons with the belief that it is an easy subject to pass should be discouraged and advised to take their classes seriously, if they really intend to make the paper. In the same vein, technical education candidates who seem to sit for the subject only for formality be schooled on the importance of the subject and encouraged to take it seriously.

0565 HUMAN BIOLOGY

I. INTRODUCTION

The examination consisted of two papers namely paper 1 and paper 2. Paper 1 had 50 multiple choice questions (MCQS) and paper 2, 9 essay-type questions divided into two sections A and B. Section A dealt with anatomy and physiology and section B dealt with man's relations with other organisms, personal hygiene and the environment. Candidates were expected to answer all the 50 multiple choice questions in paper 1 and 5 essay-type questions in paper 2; choosing three from section A and two from section B. The questions in both papers covered the entire syllabus. The rubrics and the questions were clear with no ambiguity. The number of candidates that registered for the subject this year was 19,501 as compared to 17, 715 in 2020.

II. PAPER BY PAPER ANALYSIS

- a) Paper 1: It was scored by the computer or optical map reader. It comprises 50 MCQs covering the whole syllabus, for a weighting of 40%, and a duration of 1hour 30minutes. Of the 50 questions tested, according to the Table of Specification following the Bloom's taxonomy, 30 were on knowledge, 15 on comprehension and 5 questions on application.

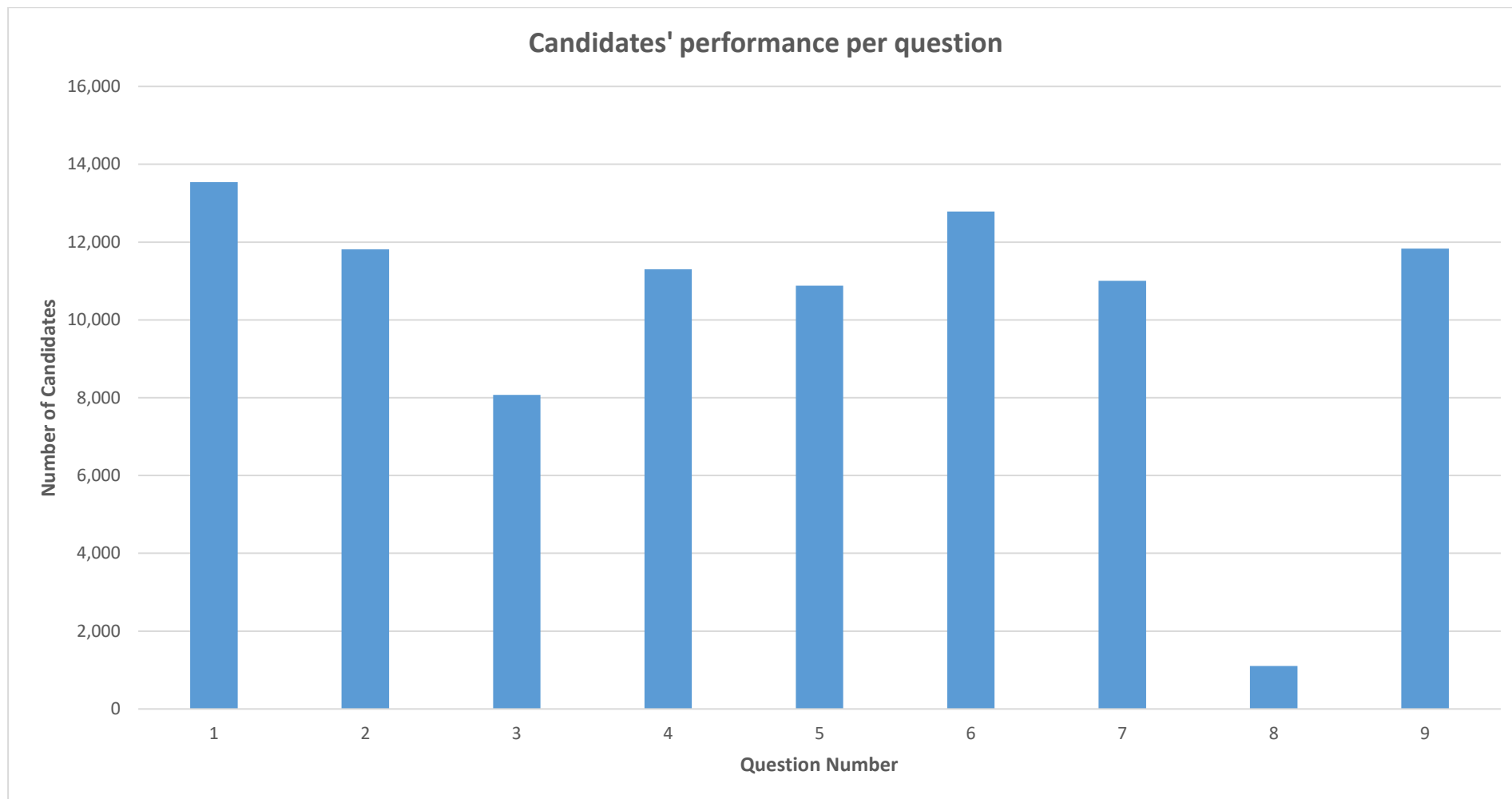
Number of questions	Objectives tested			Difficulty level
	KN	CO	AP	
30	√			*
15	√	√		**
05	√	√	√	***

The labels of the diagrams showing the structure of the cardiac muscle and the motor neuron were not clear enough but did not affect the performance of the candidates. The font size has to be improved upon.

- b) **Paper 2:** Had 9 essay-type questions; 5 in section A and 4 in section B. Candidates were expected to answer FIVE questions choosing THREE questions from section A and TWO questions from section B for a duration of 2hours 30minutes. This paper has weighting of 60% of the whole examination.

III. QUESTION BY QUESTION ANALYSIS OF PAPER TWO.

Question Number	Area of Syllabus Tested	Aims				Objectives Tested			Diff. Level of difficulty	Popularity Rating	Number of candidates	Remarks
		1	2	3	4	KN	COMP	APP				
1	Cellular Organization	√				√	√		*	1st	13,542	Simple topic of the syllabus.
2	Respiration	√				√			*	4th	11,812	Familiar and practical topic
3	Co-ordination (skin)	√				√	√		**	8th	8,074	Poor mastery of biological diagrams and the role of the skin in body temperature regulation.
4	Internal Transport / Blood groups	√			√	√	√	√	**	5th	11,302	Adaptations of red blood cells to their function of oxygen transport and blood transfusions probably not taught by many teachers
5	Genetics	√			√	√	√	√	***	7th	10,880	Inheritance of sickle -cell anaemia probably not mastered by many teachers as well as the students
6	Ecosystem			√		√	√		*	2nd	12,783	Environmental issues of daily occurrence
7	Nutrition (Photosynthesis)	√				√	√		*	6th	11,004	Topic probably not studied by the candidates
8	Sewage and garbage disposal			√	√	√	√	√	**	9th	1,103	Topic not probably taught by many teachers due to the lack of reference materials.
9	Community Health				√	√	√		*	3rd	11,830	The topic dealt with day-to-day realities in the community.



Bar Chart of the number of candidates who chose each question

The most popular questions were 1, 2, 6 and 9

The most unpopular questions were 3 and 8

The best answered questions were 1 and 2

The worst answered questions were 5 and 8

IV CANDIDATES' PERFORMANCE

The best score in paper two this year was 93% same as in 2020.

The worst score was 0% and 286 candidates scored 0% as compared to 46 candidates in 2020.

The performance this year was lower than that of 2020, despite the fact that the questions were almost of the same strength.

Grade	Excellent	Very Good	Good	Average	Below Average	Poor	Very Poor	Absent
Mark-range	≥70	60-69	50-59	45-49	37-44	1-36	0	
No. of candidates	66	292	746	681	1,499	15,932	286	191
%	0.34	1.50	3.83	3.49	7.69	81.69	1.47	0.98

Based on the statistical data above, approximately 16.84% of the candidates could pass in paper 2 if we consider a cumulative total from the below average mark range to the excellent mark range. However, good performance in this subject will equally depend on the performance in paper one.

REASONS FOR POOR PERFORMANCE

- Poor mastery of the subject matter
- Inadequate syllabus coverage due to interruption of classes as a result of the COVID-19 pandemic and the Anglophone crisis.
- Too many distractions for the candidates
- Poor mastery of English language
- Very poor drawing abilities
- Failure to obey the rubrics

- Reluctance of many biology teachers to teach human biology
- Wrong spelling of terms or words which completely change their meanings e.g.:
 - Intercoastal for intercostal
 - Inword for inward
 - Heir for hair
 - Accept for except
 - Secret for secrete
 - Chlorophile for chlorophyl
 - Belter particles for beta particles
 - Bird for birth
 - Heard for heart
 - Grandular for granular
 - Long for lung
 - Breed for breathe
 - Spore for pore
 - Wum for womb
 - Leave for leaf
 - Worm for warm
 - Sebaceous grand for sebaceous gland
 - Rip for rib
 - Brake for break
 - Dum for dome
 - Pear for pair
 - Brought for broad
 - Tick for thick
 - Tin for thin
 - Inn for in
 - Diagram for diaphragm
 - Feet for feed
 - Letter for later

- Sharp for shape
 - Hole for whole
 - Neat for need etc...
- The two-shift system implemented by the ministry of secondary education has led to inadequate syllabus coverage.
 - The e-learning implemented by the ministry of secondary education touch only very few topics in the subject which were not detailly taught.
 - Absenteism of students from human biology classes assuming they will use their biology knowledge only to write human biology.
 - The two hours allocated weekly for the teaching of human biology in most school timetables is inadequate.

SUGGESTIONS AND RECOMMENDATIONS

To the Students:

- They should put more time in studying the subject
- They should put more effort in English language
- They should attend classes regularly for good syllabus coverage
- They should master the spellings of biological terms
- They should acquire the subject syllabus and use it as a study guide.
- Strictly observe the rubrics of the exams as defaulters are penalized
- They should practise biological diagrams and respect the rules in drawing them.
- Always read the last year subject report.
- They should get past question papers for revision
- Biological diagrams should be drawn in and led in pencil and arrowheads should not be used in labelling the diagrams. Labels should not be placed inside the diagram.

To the Teachers:

- They should own copies of the subject syllabus
- They should drill the students on the spellings of biological terms
- They should exploit the yearly subject reports
- They should attend seminar workshops and participate actively in such workshops.

- They should drill the students on answering multiple choice and essay-type questions
- They should help the students to improve on their English language.
- Should guide the students on how to draw biological diagrams
- Carry out field work and practical lessons for better comprehension
- Should effectively teach human biology.
- The same teacher should teach human biology and biology in the same class
- They should help students to improve on their hand writing.
- Teachers should buy resource materials to facilitate their teaching.
- Teachers should make softcopies of their notes each year and make it available to the candidates and for easy update

To other Stakeholders:

- School principals should sponsor their teachers to attend seminar workshops and discipline irregular teachers.
- The pedagogic inspectors should supervise teachers' lessons, correct their notes and teaching methods.
- School principals should make resource materials readily available to the teachers.
- The minister of secondary education should motivate and promote hard working teachers.
- School principals should buy the subject report for consultation by both teachers and students.
- The Minister of secondary education should not interrupt classes as a result of the covid-19 pandemic measures but should rather provide the students with preventives
- The minister of secondary education should abolish the two-shift system as it is very difficult to cover the syllabus as a result of inadequate teaching hours.
- Distractions on the school calendar should be limited.
- School administrators and guidance counsellors should orientate students on career profile and the choice of subjects in order to enhance performance

VI. Conclusion/ Way Forward

In-service training and more investment on pedagogy should be made by the ministry of secondary education in order to improve student's performance at the GCE and other public examinations.

0570-MATHEMATICS

1. INTRODUCTION

The 2021 Session of the General Certificate of Education (GCE) Examination tested two Papers, Paper One (01) and Paper Two (02). Paper One (01) is comprised of fifty (50) Multiple Choice Questions (MCQs) weighted at 30% and candidates are expected to answer ALL the questions. Paper Two (02), however, is weighted at 70% and made up of Sections A and B. Section A weighted at 40%, is made of fifteen structural Questions of which candidates are expected to answer ALL. Section B weighted at 60% is comprised of four (04) essay-typed questions and candidates are equally expected to answer ALL. Thus, Section A (40%) and Section B (60%) build up to 70% of the entire 0570-Mathematics Paper Two (02), while Paper One (01) covers 30% of the overall Paper as prescribed by the syllabus and as summarized in the following table:

Paper	Section	Type of question	Duration	Mark	Weighting	Remarks
1	-----	MCQ	1½ hours	50	30%	50 questions to answer all
2	A	Structural	2½ hours	40	70%	15 questions to answer all
	B	Essay		60		04 questions to answer all

This structure places the candidates at the same platform since all the questions in the Examination are compulsory. In this 2021 Session, the 0570-Mathematics Paper tested all Sections of the Syllabus in both Paper One (01) and Paper Two (02). The structure, aims and objectives as well as weighting were highly respected following the 2011 Revised Syllabus. Thus, Syllabus coverage was quite adequate and rated at 100% in both Papers One (01) and Two (02). The necessary rubrics were equally respected in both papers as well.

2. PAPER BY PAPER ANALYSIS

I) Paper One

This 2021, 0570-Mathematics Paper One, testing MCQs with the Syllabus coverage of 100%, was 98% error free because there were some minimal typographical errors in questions 27, 20, 29 and 43, which had no effects on the questions. However, the diagram on question 20 was an oval but not a circle. Consequently, all the questions had adequate keys (answers).

Comparatively, 0570-Mathematics Paper One 2021, is of the same strength as that of 2020.

The Expected and Actual weighting of each Assessment objective is as shown on the table below.

ASSESSMENT OBJECTIVE	KNOWLEDGE			UNDERSTANDING				APPLICATION			HIGHER LEVEL ABILITY
QUESTIONS INVOLVED	1	11	13	4	5	6	7	2	3	10	35
	15	17	19	8	9	12	14	16	18	22	41
	26	29	30	20	21	23	24	28	32	36	42
	34	39	40	25	27	31	33	38	46	49	
	44	45	47	37	43	48		50			
ACTUAL NUMBER OF QUESTIONS PER OBJECTIVE	15			19				13			03
EXPECTED NUMBER OF QUESTIONS PER OBJECTIVE	30			40				20			10
ASSESSMENT WEIGHTING %	30			38				26			06

II) Paper Two

Paper Two was made up of fifteen (15) Structural questions in Section A and four (04) Essay-typed questions in Section B and candidates were expected to answer all the questions in the spaces provided. However, in Section A; the errors were negligible and spread the questions were over 11 topics and good for the average candidates. This section was less demanding. Section B, spreads over six (6) topics and was error free. Thus, the Marking Guide was modified to take care of the few errors. This Paper was assessed at 99% error free, Syllabus coverage of 100% and about the same strength as Paper Two of

2020. All the Assessment Objectives: Knowledge, Understanding, Application and High-Level Ability were tested accordingly, in this paper.

The following table indicates the ability levels that were tested:

ASSESSMENT OBJECTIVE	KNOWLEDGE	UNDERSTANDING			APPLICATION		HIGHER LEVEL ABILITY
SECTION A	ALL	1	2	3	5	7	
		4	6	8	10	11	
		9	12	15	13	14	
SECTION B	ALL	1	2(i)		2(ii)		3(ii)
		3(i)	4				
WEIGHTING %	20	40			30		10

3. QUESTION BY QUESTION ANALYSIS

PAPER ONE

This paper had fifty Multiple Choose Questions (MCQ) which were all compulsory. Each question had one correct answer and three distractors. The candidates were expected to choose one of the four answers in each of the questions.

The following is the question by question analysis:

QUESTION	TOPIC	SUB TOPIC	Assessment Objective
1	Numbers	Multiplicative identity element	*
2	Numbers	Highest Common Factors (HCF)	**
3	Numbers	Fractions (addition and division)	***
4	Numbers	Subtraction of a decimal from a whole number	**
5	Numbers	Equivalent fractions	**
6	Numbers	Decimal places	*

7	Numbers	Multiplication and expressing in standard form	**
8	Numbers	Exchange	**
9	Numbers	Percentage	**
10	Numbers	Ratios	***
11	Sets	Relation between sets using set notation	*
12	Sets	Identify a region on a Venn diagram	**
13	Logic	Truth tables	*
14	Functions	Finding an image	**
15	Functions	Cartesian product	*
16	Functions	Composite functions	***
17	Euclidean Geometry	Types of triangle	*
18	Euclidean Geometry	Solid figure	***
19	Euclidean Geometry	Lines of symmetry	*
20	Euclidean Geometry	Angle subtended by the diameter	**
21	Euclidean Geometry	Angles in transversal	**
22	Mensuration	Area of circle	***
23	Mensuration	Surface area of a solid figure	**
24	Mensuration	Area of a square	**
25	Rectangular Coordinates Geometry	y - intercept	**
26	Rectangular Coordinates Geometry	Parallel lines	*
27	Rectangular Coordinates Geometry	Midpoint	**
28	Rectangular Coordinates Geometry	Equation of a straight line	***
29	Network	Arcs of a network	*
30	Algebra	Coefficient of a term	*

31	Algebra	Substitution in an expression	**
32	Algebra	Linear inequality	***
33	Algebra	Simplification of algebraic expression	**
34	Algebra	Equality of indices	*
35	Algebra	Rearranging a formula	****
36	Algebra	Terms of a sequence	***
37	Algebra	Finding a term from the sum of n terms	**
38	Algebra	Finding the remainder	***
39	Trigonometry	Sum of interior angles of a triangle	*
40	Trigonometry	Trigonometric ratio	*
41	Trigonometry	Bearing of a point	****
42	Vectors	Parallel vectors	****
43	Vectors	Sum of vectors	**
44	Matrices	Order of matrix	*
45	Matrices	Identity matrix	*
46	Matrices	Transformation of matrices	***
47	Statistics and Probabilities	Mode	*
48	Statistics and Probabilities	Median	**
49	Statistics and Probabilities	Mean	***
50	Statistics and Probabilities	Probability of a card	***

PAPER TWO

All the questions in Sections A and B were attempted though some of their solutions did not lead to the expected answers. The highly attempted questions in Section A were 1,2,4,5,6,7,8,10,12,13,14,15; averagely attempted was 3; and the poorly attempted questions were 9

and 11. In Section B, the highly attempted questions were 1, 2(i),3(i) and 4; averagely attempted was 2(ii) and the poorly attempted was 3(ii).

Many categories of answers were recorded. There were a few brilliant and very good answers, some average and poor answers were recorded and many very poor answers. This year, there were two funny/humorous answers. There were many scripts in packs containing copy work. The highest score was ninety-seven percent (97%) and the least score was zero percent (00%). It is worth noting that the number of candidates who scored zero (00%) were fewer this year. Many candidates attempted the questions and so, absences were fewer.

The following is the question by question analysis:

QU EST ION	TOPIC(S)		COMMENTS
SECTION A			
1	Percentages	Discount	A very popular question and many candidates did it so well. A few candidates could not identify the selling price 100%. Teachers should teach and stress on handling the steps in solving and simplifying problems on numbers, selling prices and percentages
2	Linear and quadratic equations	Linear equation	A popular question that was well handled by many candidates. Some candidates could not multiply all through by the LCM and many did not know how to expand the brackets. Teachers are advised to insist on expansion of brackets and give many varied examples.
3	The straight-line segment	a) Gradient of a straight line	The question was not very popular though many candidates attempted it but did not have mastery of handling the algebraic aspect. Teachers should teach with many examples of gradient of various forms.
		b) Coordinates of an intercept	Not popular because candidates could not come out with the gradient – intercept form in (a).
4	Quadratic equations	a) Factorization	The question was popular and attempted by many candidates. They were required to factorize. Teachers are advised to teach the appropriate rules in handling factorization.
		b) Solution of a quadratic equation	Popular questions. Many candidates solved it in part (a).
5	Logic	Truth table of the negation of the	A very popular question. Many Candidates performed poorly on the approach. Many of the candidates skipped the conjunction and went to the negation. Teachers are advised that when teaching they should teach all the steps necessary.

		conjunction	
6	Mathematical relations	a) Types of relations	A very popular question which most of the candidates had it correctly but some just copied any of the relations.
		b) Cartesian product	Popular but most of the candidates did not understand the concept of ordered pairs.
		c) Range of a relation	Many attempted the question but showed no mastery of a range as a set. Many used the concept of range in statistics which is wrong. Teachers are advised to prepare their lessons well.
7	Matrices	a) Transpose	A very popular question with poor performance. Many candidates could not transpose well. Teachers are advised to teach all the concept in matrices.
		b) Equality of matrices	Poorly interpreted by many candidates who attempted part (a) but did not understand the concept of equality of matrices. Teachers are advised to emphasize on this when teaching matrices.
		c) Multiplication of matrices	Popular but candidates performed poorly because most of them were squaring the entries leading to wrong concept. Let teachers teach matrices well.
8	Variation	a) Direct variation	A very popular question where many candidates had several correct approaches. Many candidates combined (a) and (b) and solved together. A few candidates poorly interpreted variation with a constant. Teachers are advised to teach all the forms of variation and give many and separate examples so that candidates can see the various approaches.
		b) Substitution	
9	Polygons	a) Exterior and interior angles	A very unpopular question but many candidates could not understand the concept of polygon. Teachers are still advised to teach this concept well, and solve many of such problems as examples.
		b) Number of sides of a regular polygon	Many of the candidates could not solve correctly because of lack of knowledge. Teachers are advised to teach this correctly and thoroughly.
		c) Identification	Unpopular like in (a) and (b).
10	Inequalities	Linear inequalities	A very popular question. Some candidates could not expand correctly but many did it correctly and drew the number line. Teachers are advised to revise inequality well.
11	Circles	a) Sum of angles in a triangle	This question was not popular. Some of the candidates who attempted it did not show the mastery of the circle theorems. Teachers are advised to use the CBA to teach this topic and give varied examples.

		b) Angle subtended at the circumference	
		c) Tangent theorem	
12	Vectors	a) Position vector	A very popular question. Some of the candidates who attempted it had a problem with algebra. Teachers should treat this concept well.
		b) Equality of vectors	Some of the candidates who attempted this question did not know the concept of equality of vectors. Teachers should treat this aspect well.
		c) Magnitude of a vector	Popular and attempted by many candidates
13	Networks	a) Drawing a network	The question was very popular, many candidates had it correctly but some showed that they could not understand the concept of vertices, arcs and nodes. Teachers should emphasize on these concepts.
		b) Identifying the number of arcs	Popular with many candidates having it correctly.
14	Trigonometry	a) Pythagoras theorem	This question was very popular with many candidates having it correctly. Some candidates did not show a mastery of the concepts in trigonometry. Teachers should teach with many examples.
		b) Length of a side	
		c) Trig. Ratio of a right-angle triangle	
15	Probability	a) Mutually exclusive events	A very popular question but was poorly attempted. Some exhibited a poor mastery of the concept of mutually exclusive events. Teachers are advised that when teaching, these concepts, these aspects should be emphasized.
		b) Mutually exclusive events	
		c) Complementary events	
SECTION B			

1	Numbers	Number arithmetic involving (Profit, ratios, fractions)	A very popular question that was well handled by most candidates. Teachers are encouraged to continue teaching the topic well, ie percentages, ratios etc since it is recurrent. Many candidates were solving without the leading statements showing a lot of copy work. Teachers are advised that they should use CBA in teaching this topic.
2	i) Graphs	Drawing a quadratic graph from a generated data	A popular question, many candidates drew the table of values well. In drawing the graph some candidates had problems with the scale. Many candidates could not determine the roots from the diagram, showing that the concept is not well taught. Teachers are advised that when teaching they should use the graph board.
	ii) Algebra	Factor theorem	A very popular question but with poor performance because of algebra. Teachers are advised to teach with many examples to demonstrate the theorems.
3	i) Sets	Venn diagram	A very popular question, many candidates who attempted the question could not identify the region needed. Teachers are advised to teach all the various forms of Venn diagrams and explain generally.
	ii) Constructions	Constructing an incircle	Very popular but many did not show the mastery of construction and how to use construction instruments. Teachers are advised that the topic should be handled with care and should use CBA to teach.
4	Statistics and Probability	Finding the central tendencies and the number of candidates of a specific data. Find the probability of an event and the percentage	A very popular question, but many candidates could not interpret the central tendencies. For the mean some candidates interchange the values. Teachers should teach the students on how to solve for central tendencies. Probability was popular but showed the data was large and the decimal place was not handled well. Teachers are advised to teach probability in all of its forms.

Much emphasis has to be laid by all pedagogues on topics that present difficulties to candidates with no rudimentary detail taken for granted. The new topics should equally be given the necessary attention.

This general poor performance could have partly been attributed to the following limiting factors:

- a) Teacher shortage in quality and quantity.

- b) Poor motivation due to unsatisfactory working conditions.
- c) Poor distribution of teachers in State schools.
- d) Lack of adequately trained teachers in most private schools.
- e) Overcrowded classrooms in most State schools.
- f) Disturbed academic year by the two (2) crises
- g) Some teachers who are trained to teach other subjects now teach Mathematics due to the shortage of Mathematics teachers.
- h) Lack of didactic materials for teachers and students.
- i) Ineffective coverage of the syllabus.
- j) Poor Revision Strategies.
- k) The lack of the knowledge of English Language which is a basic tool for teaching.
- l) Lack of the use of appropriate Mathematical language in class.
- m) The fact that the 2011 Revised Syllabus for 0570-Mathematics has not been mastered by some teachers.
- n) Some of the Mathematics teachers in Government schools are typical Francophones who find it difficult to deliver the goods in English.

4. SUGGESTIONS/RECOMMENDATIONS

i) To Students:

- a) Make efforts to attend Mathematics classes.
- b) Take their mathematics lessons very seriously
- c) Make efforts to relate the study of 0570-Mathematics to Practical Life situations.
- d) Develop good revision strategies and avoid speculation.
- e) Acquire all necessary material (exercise books, textbooks and mathematical instruments) required to prepare for this examination and be familiar with their use.
- g) Put in the minimum number of years required to be adequately prepared to write the 0570 Mathematics subject.
- h) Make effective use of the calculator.
- i) Keep abreast with the disadvantages and consequences of collusion and cheating during any examination.

ii) To the Teachers:

- a) Be computer literate
- b) Make good use of the Subject Reports which are available in schools
- c) Buy and own relevant textbooks
- d) Keep abreast with current trends and changes affecting the 0570-Mathematics subject.
- e) Each own a copy of the 2011 Revised Syllabus and master it.
- f) Revise and modify their teaching methods
- g) Master and apply the Competence Based Approach (CBA).
- h) Make sure that all students entrusted to them cover the relevant syllabuses.
- i) Apply concrete revision strategies to include notions learnt in Pre-Secondary schools and the early classes of Secondary School.
- j) Be assiduous, even in very difficult circumstances.
- k) Should be active in all the Mathematics Teachers Associations in their various Divisions and/or Regions
- l) Attend all Pedagogic Seminars related to Mathematics.
- m) Endeavour to be knowledgeable in all topics in the Syllabus and Schemes of work, especially the recently introduced topics.
- n) Work untiringly to demystify Mathematics in the classroom
- o) Should avoid stigmatizing students, especially in relation to Mathematics.
- p) Avoid unnecessary last-minute revision classes and all forms of speculation.
- q) Mathematics teachers should look for ways to motivate the students while in class.
- r) Teachers should formularize their students with the structure of the paper during last minute revisions.

iii) To Other Stakeholders:

- a) The intake for training of teachers of Mathematics into Teacher Training Institutions should be increased
- b) Emphasis should be laid on the intake of Anglophones into Teacher Training Colleges
- c) Teacher Training Colleges should endeavor to admit students who have at least a **C-grade** in 0570-Mathematics for the sake of subject continuity.
- d) The law on classroom size and the number of hours allocated to the teacher should be revisited by all the parties concerned.
- e) Parents should follow up the progress of their children and constantly provide their needs.

- f) Judicious deployment of teaching staff so as to minimize the shortage of mathematics teachers in most schools.
- g) Staff motivation and follow up should be instituted aimed at improving on the working conditions of teachers.
- h) Students should be sensitized on the disadvantages and dangers of any form of collusion and scamming.
- i) Encourage In-Service Training of Teachers through Subject Teachers Associations and the Mathematics Inspectorates in the Regions.
- j) Avoid using untrained Mathematics teachers as seen in the glaring use of PTA teachers and/or teachers from other subjects who teach mathematics but do not master the real intrigues in the teaching of, 0570-Mathematics
- k) Head of institutions should equip the Mathematics department with basic Mathematical Tools.
- l) Pedagogic Inspectors should be able to organize Pedagogic Seminars for the effective teaching of 0570-Mathematics.

5. CONCLUSION: WAY FORWARD

In the 2021, 0570-Mathematics Examinations, the 2011 Revised syllabus was adequately covered and the aims and objectives attained. We are waiting for the unique time when Mathematics will be truly compulsory and highly reflected, as a cherished subject, in the results. We wish that all the stakeholders apply the above proposals to ensure an increase in the performance in this subject at the GCE.

575 ADDITIONAL MATHEMATICS

The subject 575 Additional Mathematics is actually a pre require for Advanced Level Mathematics.

Experience has shown that candidates who do not offer 575 Additional Mathematics find it quite difficult to proceed with studies of A Level Mathematics.

In June 2021 General Certificate of Education Examinations, the Ordinary Level Additional Mathematics with code number 0575 tested two papers.

- Paper 1 comprising of 50 multiple choice questions of Pure Mathematics to answer all.
- Paper 2 comprising three sections A, B and C. Candidates are expected to answer Section A (**Pure Mathematics**) which is compulsory with eight questions of which the candidates are to answer all, Section B(**Mechanics**) and C(**Statistics and Probability**) are optional each comprising of three questions and the candidates were expected to answer two. i.e. Candidates were expected to answer both Section A and B OR Section A and C.
- The weighting for paper 1 is 40% and paper 2 is 60%.

These two papers were within the syllabus content with all rubrics respected and adequate attention given to all areas of the syllabus.

The marking guide was properly harmonized by all examiners and hence a general consensus was arrived at by all the examiners after trial marking.

2021 SESSION

Marks of a sample of 7815 scripts were recorded and the statistics are as follows;

Range	0 - 9	10-19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89
f	115	628	1163	1458	1434	1152	913	559	300
x	4.5	14.5	24.5	34.5	44.5	54.5	64.5	74.5	84.5
fx	517.5	9106	28493.5	50301	63813	62784	58888.5	41645.5	25350
fx^2	2328.75	132037	698090.75	1735384.5	2839678.5	3421728	3798308.3	3102589.8	214207

1

mean mark, $\bar{x} = 44.75$ and standard deviation, $\delta = 19.77$

2020 SESSION

Marks of a sample of 6327 scripts were recorded and the statistics are as follows;

Range	0 - 9	10-19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 - 99
-------	-------	-------	---------	---------	---------	---------	---------	---------	---------	---------

f	81	371	850	1257	1249	1040	750	479	199	5
x	4.5	14.5	24.5	34.5	44.5	54.5	64.5	74.5	84.5	94.5
fx	364.5	5379.5	20825	43366.5	55580.5	56680	48375	35685.5	16815.5	480.5
fx^2	1640.25	78002.75	510212.5	1496144	2473332	3089060	3120188	2658570	1420910	455.5

mean mark, $\bar{x} = 45.5$ and standard deviation, $\delta = 18.66$

Based on this statistics, one can conclude that the difficulty index for this year for paper 2 is approximately (0.447) as compared to (0.455) of last year.

The paper 1 this year was corrected by the scanners and therefore the difficulty index to be produced by the scanner.

The table below shows a comparison analysis in the performance of paper 2 for the last twelve years.

YEAR	Registered	% Increase	No of candidates with marks \geq 70	Overall % of high ability candidates	Observation
2010	4112		149	3.623	
2011	4390	6.761	161	3.667	Slight increase in registration with high ability candidates remaining almost the same as the previous year
2012	5077	15.649	346	6.815	Quite a good increase in registration with slight improvement of the high ability candidates as compared to the previous year
2013	4311	-15.088	404	9.371	Decrease in registration with slight improvement of the high ability candidates as compared to the previous year
2014	4378	1.554	767	17.519	Slight increase in registration with significant increase of high ability candidates as compared to the previous year
2015	5081	16.058	309	6.081	Quite a good increase in registration with a very sharp drop of the high ability candidates as compared to the previous year
2016	5766	13.482	896	15.539	Quite a good increase in registration with significant increase of high ability candidates as compared to the previous year
2017	4197	-27.21	483	11.508	Decrease in registration with a great decrease of the high ability candidates as compared to the previous year
2018	7000	66.79	1009	14.414	Quite a good increase in registration with significant increase of high ability candidates as compared to the previous year
2019	6032	-13.86	763	-24.32	Decrease in registration with a great decrease of the high ability candidates as compared to the previous year
2020	7347	21.8	≈827	8.388	Increase in registration and slight increase in high ability students
2021	8612	17.22	≈952	≈15.11	Increase in registration and slight increase in high ability students

TOS FOR PAPER 1

SN	Correct Key	Section of the syllabus	Sub topics	Topic	Knowledge	Difficulty Level	Comprehension	Difficulty Level	Application	Difficulty Level	Higher Abilities	Difficulty Level	Overall Weighting	% Allocated
1	B	10.1	Indices	Indices, logarithms and surds	1	*							1	2
2	B	10.2	Logarithms	Indices, logarithms and surds	1	*							1	2
3	D	10.6	Arithmetic operation of surds	Indices, logarithms and surds			1	*					1	2
4	D	12.3	Symmetric roots of a quadratic equation	Quadratic functions and simple equations	1	*							1	2
5	B	12.3	Symmetric roots of a quadratic equation	Quadratic functions and simple equations							1	*	1	2
6	D	12.3	Symmetric roots of a quadratic equation	Quadratic functions and simple equations			1	**					1	2
7	C	9.2	Factor theorem	Polynomials					1	**			1	2
8	A	9.1	Remainder's theorem	Polynomials					1	**			1	2
9	C	3.1	Sequences and functions	Sequences	1	**							1	2

10	D	3.8	Geometric mean	Sequences			1	**					1	2
11	C	3.2	Arithmetic sequences.	Sequences							1	**	1	2
12	B	3.9	Sum to infinity of a geometric sequence	Sequences					1	*			1	2

13	B	2.3	Binomial theorem for negative indices.	Permutations, Combinations and Binomial theorem					1	**			1	2
14	C	2.2	Binomial theorem for expansion of $(a + b)^n$, for positive integral indices n.	Permutations, Combinations and Binomial theorem	1	*							1	2
15	D	2.1	Permutations	Permutations, Combinations and Binomial theorem			1	*					1	2
16	C	2.1	Combinations	Permutations, Combinations and Binomial theorem			1	*					1	2
17	D	1.2	The three basic trigonometric ratios of angles up to 360° (2°).	Circular measure and trigonometry	1	*							1	2
18	A	1.7	Relationship between trigonometric ratios	Circular measure and trigonometry			1	*					1	2
19	C	1.3	Trigonometric ratios for the angles 0° , 30° , 45° , 60° , 90° and their associates.	Circular measure and trigonometry							1	*	1	2
20	D	1.1	Radian measure: Arc length, area of sector and area of segment	Circular measure and trigonometry	1	*							1	2
21	A	1.7	Relationship between trigonometric ratios	Circular measure and trigonometry	1	*							1	2
22	B	1.8	Applications of trigonometric ratios to simple problems in two dimensions	Circular measure and trigonometry					1	**			1	2
23	B	4.3	The coordination of the mid-point joining two points	Cartesian coordinate geometry			1	**					1	2
24	A	4.7	Distance from a point to a straight line.	Cartesian coordinate geometry					1	**			1	2

25	C	4.2	The straight line and its equation	Cartesian coordinate geometry			1	**					1	2
26	C	4.4	Condition for two lines to be parallel or to be perpendicular	Cartesian coordinate geometry	1	*							1	2
27	A	Maths	Linear inequalities	Quadratic functions and inequalities			1	**					1	2
28	D	Maths	Quadratic inequalities	Quadratic functions and inequalities			1	**					1	2

29	D	11	Inequality involving absolute value.	Absolute value function			1	**					1	2
30	B	6.1	Objective functions.	linear programming							1	*	1	2
31	A	6.1	Objective functions.	linear programming			1	**					1	2
32	D	6.1	Objective functions.	linear programming							1	**	1	2
33	A	Maths	Composite Functions	Functions			1	*					1	2
34	D	Maths	Piece-wise Functions	Functions			1	*					1	2
35	C	7.3	Transformations in a plane associated with 2 x 2 matrices	Application and transformation of the 2-Demisional plane	1	**							1	2
36	A	7.1	Application and interpretation of 2 x 2 matrices	Application and transformation of the 2-Demisional plane			1	**					1	2
37	C	7.6	Inverse matrices	Application and transformation of the 2-Demisional plane			1	**					1	2
38	A	8.1	Binary operations	Elementary group theory			1	**					1	2
39	B	8.1	Identity element	Elementary group theory					1	*			1	2
40	C	8.2	Order of a group	Elementary group theory	1	*							1	2
41	D	5.9	Equation of a line segment	Vectors	1	*							1	2
42	B	5.8	The unit vectors i and j	Vectors	1	*							1	2
43	A	5.4	Dot product	Vectors			1	**					1	2

44	A	5.9	Equation of a line segment	Vectors	1	*							1	2
45	A	13.1 b	Differentiation of standard functions of x^n	Differentiation			1	*					1	2

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46	D	13.1 b	Differentiation of standard trigonometry functions	Differentiation					1	*			1	2
47	A	13.1 d	Application to gradients, stationary points, tangents and normal.	Differentiation			1	**					1	2
48	C	14.1a	Integrate simple functions of x^n	Integration			1	*					1	2
49	B	14.1 b	Integration of sinax and cosax	Integration					1	*			1	2
50	D	14.2 c	Application of integration	Integration					1	**			1	2
				TOTAL	14	0	21	0	10	0	5	0	50	100
				%	28	0	42	0	20	0	10	0	100	
				Difficulty Level	*	**								
				TOTAL	27	23								
				% Allocated	54	46								

TOS FOR PAPER 2

SN	Section of the syllabus	Topic	Marks Allocated	Knowledge	Difficulty Level	Comprehension	Difficulty Level	Application	Difficulty Level	Higher Abilities	Difficulty Level	Overall Weighting		
												% Allocated for the question	Difficulty Level	% Allocated
SECTION A														
1i	9.2, 9.3	Polynomials	4	1	*	2	**	1	*			6.060606	15*	51.72414
1ii	12.3	Quadratics functions and simple equations	4	2	*	2	**					6.060606		
2i	2.1	Permutations, Combinations and Binomial theorem	4	1	*	3	**					6.060606		
2ii	2.3	Binomial theorem for negative indices.	4			2	**	2	*			6.060606		
3	3.5	Sequences	8	4	*	2	**	2	*			12.12121	13**	44.82759
4i	8.1a&b	Elementary Group theorem	4	2	*	2	*					6.060606		
4ii	7.1 & 7.2	Application and transformation of the 2-d plane	5	1	*	3	**	1	**			7.575758		
5	6	Linear programming	8	1	*					7	** *	12.12121		
6i	1.7	Circular measure and Trigonometry	3			1	*	2	**			4.545455	1****	3.448276

6ii	1.6	Circular measure and Trigonometry	6	2	*	3	**	1	**			9.090909		
7	5.9& 5.4	Vectors	8	2	*	5	**	1	**			12.12121		
8i	13.1c	Differentiation	4	2	*	2	**					6.060606		
8ii	14.2 (c)	Integration	4	1	*	3	**					6.060606		
		TOTAL	66	19	0	30	0	10	0	7	0	100		100
		OVERALL % WEIGHTING FOR SECTION A		28.78788		45.45455		15.15152		10.60606		100		

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SN	Section of the syllabus	Topic	Marks Allocated	Knowledge	Difficulty Level	Comprehension	Difficulty Level	Application	Difficulty Level	Higher Abilities	Difficulty Level	Overall Weighting		
												% Allocated for the question	Difficulty Level	% Allocated
	SECTION B													
9i	16.1	Dynamics	6	2	*	2	**	2	**			11.76471	12*	52.17391
9ii	16.5	Dynamics	6	2	*	2	**	2	**			11.76471		
9iii	16.7	Dynamics	5	1	*	3	**	1	*			9.803922		

10i	15.1	Application of Calculus	5	2	*	2	**	1	**			9.803922		
10ii	15.2	Application of Calculus	6	1	*	3	**	2	*			11.76471		
10iii	15.3	Application of Calculus	6	2	*	2	**	2	*			11.76471	11**	47.82609
11i	17.3	Statics	8	2	*	4	**	2	**			15.68627		
11ii	18.1, 18.2	Work done and Power	9	3	*	3	**	3	*			17.64706		
		TOTAL	51	15	0	21	0	15	0	0	0	100		
		OVERALL % WEIGHTING FOR SECTION B		29.41176		41.17647		29.41176				100		

SN	Section of the syllabus	Topic	Marks Allocated	Knowledge	Difficulty Level	Comprehension	Difficulty Level	Application	Difficulty Level	Higher Abilities	Difficulty Level	Overall Weighting		
												% Allocated for the question	Difficulty Level	% Allocated
SECTION C														
12a	19.3,20.1	Descriptive Statistics, Measures of central tendency and measures of desperation	12	3	*	5	**	4	**			23.52941	8*	57.14286
12b	20.1, 21.5	Measures of Central Tendency and Dispersion	5	2	*	2	**	1	*			9.803922		
13i	23.2	Elementary distributions	9	1	*	5	**	3	*			17.64706		
13ii	23.1	Elementary distributions	8	4	*	2	**	2	*			15.68627	6**	42.85714
14i	22.2 b	Probability	8	3	*	3	**	2	**			15.68627		
14ii	22.2 (c) , (d)	Probability	9	3	*	3	**	3	**			17.64706		
		TOTAL	51	16	0	20	0	15	0	0	0	100		100
		OVERALL % WEIGHTING		31.37255		39.21569		29.41176			100			

		FOR SECTION C												
		OVERALL TOTAL(A + B)	117	34	0	51	0	25	0	7	0	117		
		OVERALL % WEIGHTING SECTIONS A and B		29.05983	0	43.58974	0	21.36752	0	5.982906		100		
		OVERALL TOTAL(A + C)	117	35	0	50	0	25	0	7	0	117		
		OVERALL % WEIGHTING SECTIONS A and C		29.91453	0	42.73504	0	21.36752	0	5.982906	0	100		

QUESTION BY QUESTION ANALYSIS

A: POPULARITY AND GENERAL PERFORMANCE IN PAPER 2

Approximately 1500 sample scripts were sampled

QUESTION NUMBER	0 to 2	3 to 5	6 to 8	09 to 11	12 to 14	15 to 17	Maximum Mark for the question	Number Scripts sampled for the question	2021 % of popularity	2020 % of popularity	20201 Mean mark	2020 Mean mark	2021 (δ^2)	2020 (δ^2)	2021 (δ)	2020 (δ)	2021 NO PASSED	2021 OVERALL % PASSED	2020 NO PASSED	2020 OVERALL % PASSED	2021 NO ≥ 70	% with NO ≥ 70	OBSERVATION
1	147	363	955				8	1465	97.7	98.6	5.65	5.53	4.03	3.51	2.01	1.87	1046	71.4	819	75.55	907	61.9	Popularity rate almost same as last year though drop in performance as compared to last year
2	656	401	302				8	1359	90.6	89	3.22	5.13	5.73	4.38	2.39	2.27	402	29.6	674	68.85	287	21.1	Increase in popularity and a drop in performance as compared to last year

3	36 1	29 3	71 4				8	136 8	91. 2	81	4.7 7	4.6 7	6.4 7	5.6 6	2.5 4	2.3 8	787	57. 5	54 5	61.1 7	67 9	49. 6	Increase in popularity and a drop in performance as compared to last year
4	27 7	59 9	44 0	11 9			9	143 5	95. 7	91. 9	4.7 6	5.7 5	6	4.6 4	2.4 5	2.1 5	559	39	69 9	69.1 4	38 3	26. 7	Increase in popularity and a drop in performance as compared to last year

5	36 8	39 2	29 8				8	105 8	70. 5	75	3.8	3.5 3	5.6 3	4.5 1	2.3 7	2.1 2	396	37. 4	34 5	41.8 2	28 3	26. 8	Drop in popularity and performance as compared to last year
6	31 5	42 5	43 6	91			9	126 7	84. 5	88	4.6 5	5.2 1	6.7 1	6.3 4	2.5 9	2.5 2	527	41. 6	59 1	61.0 5	35 3	27. 8	Drop in popularity and performance as compared to last year
7	53 3	34 2	17 0				8	104 5	69. 7	69. 8	2.9 6	3.6	4.9 7	4.6 9	2.2 3	2.1 7	256	24. 5	32 4	42.1 9	16 1	15. 5	Same popularity and though a drop in performance as compared to last year
8	58 8	23 2	19 2				8	101 2	67. 5	73. 6	2.8 3	4.3 6	5.5 6	5.7 4	2.3 6	2.4	250	24. 7	45 3	56	18 2	18	Drop in popularity and performance as compared to last year

9	54	25	23	33	32	45	17	212	14. 1	19	8.4	9.1 8	32. 3	19. 4	5.6 8	4.4 1	110	51. 9	12 0	57.4 2	71	33. 3	Drop in popularity and performance as compared to last year
10	23	20	13	15	12	17	17	100	6.6 7	11. 1	7.7 2	10. 4	29	23. 4	5.3 8	4.8 4	44	44	81	66.3 9	39	38. 6	Drop in popularity and performance as compared to last year

11	28	32	39	16	14	21	17	150	10	11. 3	7.3 8	8.8 2	24. 2	20. 9	4.9 1	4.5 7	51	34	61	49.1 9	32	21. 5	Drop in popularity and performance as compared to last year
12	16 4	19 9	21 6	20 2	25 9	20 0		124 0	82. 7	81. 6	8.9 2	8.3 7	24. 6	17. 3	4.9 6	4.1 5	661	53. 3	46 1	51.3 4	40 7	32. 8	Increase in popularity and performance as compared to last year
13	99	14 0	11 5	95	10 6	52	17	607	40. 5	51. 7	7.6 2	8.4 8	22. 2	20. 3	4.7 1	4.5	250	41. 2	23 7	41.6 5	13 7	22. 5	Drop in popularity and a slight drop in performance as compared to last year
14	12 6	18 4	22 3	22 1	17 9	73	17	100 6	67. 1	65. 5	8.0 8	8.9	19. 3	16	4.3 9	4	473	47	37 6	52.2 2	21 6	21. 5	Improvement in popularity and a drop in performance as compared to last year

B: SHORTCOMINGS OF CANDIDATES

			SHORTCOMINGS OF CANDIDATES
Question	SUB PART	TOPIC	Current year 2021
		SECTION A	
1	I	Polynomials	Some candidates do not master that if $(x - \alpha)$ is a factor of $f(x)$ then $f(\alpha) = 0$ Some too don't master the long division method very well
	ii	Quadratics functions and simple equations	Knowing $\alpha + \beta$ and $\alpha\beta$ Some candidates were not able to find $\frac{1}{\alpha} + \frac{1}{\beta}$.
2	i	Permutations, Combinations	Most of the candidates are confused when to use permutation and combination.
	ii	Binomial theorem	Some candidates do not master how to use the general formulae to expand a binomial with negative indices
3		Sequences	Some candidates can't relate worded questions to sequences
4	i	Group theory	Some candidates do not have mastery of modular arithmetic
	ii	Transformation	Many candidates were not able to get the inverse of 2 x 2 matrix. Some were not equally able to find the coordinates of a point whose image was given
5		Linear programming	Poor mastery of the topic.
6	i	Circular measure and trigonometry	Some candidates were unable to solve simple trigonometric equations.
	ii	Circular measure and trigonometry	Some candidates were unable to fill the table and draw their graph properly. Some used straight lines to connect the points. Some were unable to distinguish between the maximum and minimum turning points.
7		Vectors	Poor mastering of topic by most candidates. Some could not write out a vector equation of a straight line passing through 2 points Candidates could not equate the two lines to form a simultaneous equation to get the parameters.

8	i	Differentiation	<p>Poor mastery of differentiation of piece –wise functions.</p> <p>Some too could identify the correct arm to use in finding the value of the function at a particular point.</p> <p>Some candidates were unable to distinguish between an inverse function $f^{-1}(x)$ and the derived function $f'(x)$.</p>
	ii	Integration	Poor mastering of the topic by some candidates.

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		SECTION B	
9	i	Dynamics (kinematics)	Poor mastery of applications of differentiation i.e. $v = \frac{dx}{dt}$ and $a = \frac{dv}{dt}$
	ii	Dynamics(Motion of connected particles)	The few who attempted it could not apply Newton's second law of motion properly and hence could not come with the equations of motions or even come out with the correct diagram.
	iii	Dynamics (Conservation of linear momentum)	Poor mastery of the topic. The few who attempted were unable to quote the principles of conservation of linear momentum properly and hence could not get the velocity required. Some too were unable to quote the formula for kinetic energy
10	i	Application of Calculus (connected rate of change)	<p>Poor mastery of topic and to apply the chain rule. i.e. $\frac{dA}{dt} = \frac{dA}{dr} \cdot \frac{dr}{dt}$</p> $\frac{dC}{dt} = \frac{dC}{dr} \cdot \frac{dr}{dt}$
	ii	Application of Calculus(volume of revolution)	Poor mastery of the topic. The few who attempted used $\pi \int y \, dx$ instead of $\pi \int y^2 \, dx$. Some even omitted the π completely.
	iii	Application of Calculus(centre of gravity)	Poor mastery of the topic. The few who attempted it never realized that the position vector of the centre of gravity is $\frac{\sum m_i x_i}{\sum m} i + \frac{\sum m_j y_j}{\sum m} j$
11	i	Statics(forces)	Very poor mastery of the topic. Much still have to be done on equilibrium of forces
	ii	Work done and Power	Most candidates did not realize that at maximum speed $a = 0$.

			Some too were unable to find the driving force on an inclined plane and on a level surface.
		SECTION C	
12		Descriptive Statistics, Measures of central tendency and measures of dispersion (mean and variance of grouped data)	Many candidates got confused to plot the cumulative frequency graph using mid interval values (class marks) or the upper class limits instead of the upper class boundaries. Many could not estimate the median and the quartiles from the graph. Many too were unable to use mid interval values to get $\sum fx$ or $\sum fx^2$ to evaluate their mean
13	i	Elementary notions of discrete probability distributions	Most candidates could not fill the table and couldn't identify that for a probability mass function $\sum p(x) = 1$. Some could not evaluate the mean and the variance.
	ii	Binomial distribution	Poor mastery of topic. It seems many teachers don't teach it
14	i	Probability	Poor mastery of topic. Many could not quote the formulas $P(A \cap B) = P(A) \times P(B)$ for independent events and $p(A \cup B) = p(A) + p(B) - p(A \cap B)$ correctly.
	ii	Probability	Poor mastery of topic. The few who attempted it misinterpreted the question especially on the tree diagram. Some of them don't know the difference between (and) and (or) in probability language.

SUGGESTIONS AND RECOMMENDATIONS

A: TO STUDENTS:

- Are advised to acquire atleast one basic text book for the subject.
- Are to study Additional Mathematics as other subjects.
- To follow up lectures closely and do assignments.
- Should acquire formulae booklets, calculators and master to use them.
- Always consult to past questions after every treated topic.

B: TEACHERS:

- To acquire text books for the subject.
- To cover the relevant syllabus before the examination.
- To attend seminars and workshops.
- To acquire the prescribed syllabus and scheme of work.
- To improve on their research ability towards the subject
- To encourage the students to take the subject rather than discouraging them by teaching materials above their scopes.
- To teach all the areas of the syllabus in order not to allow the students wanting during examinations.
- To perfect themselves by teaching across the first and second cycle if possible.
- To keep abreast with the current trends affecting the subject i.e. change of some areas of the syllabus and question setting.
- Read the subject reports for each year.

C: TO OTHER STAKEHOLDERS

- The pedagogic offices should organize workshops and seminars to redress the teaching of the topics that are poorly attempted by candidates.
- The pedagogic offices should make frequent checks and inspections in schools to redress the teaching of these topics.
- School authorities should make sure that the program for Additional Mathematics begins in form four with at least two periods a week.
- School authorities should make subject reports available to the teachers to read them departmental.
- School authorities should endeavor to sponsor their teachers for seminars and workshops.
- The parents should acquire basic text books for their children and past questions.

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CONCLUSION:

The necessity of 575 Additional Mathematics cannot be over emphasized as it is the foundation of mathematicians, statisticians and engineers.

0580 PHYSICS

Introduction

The 2021 subject report will cover mainly Paper 2 which was marked by the examiners. The marking guides were discussed and appropriate modifications made on them to come out with the marking schemes that were used. All the 11 topics on the syllabus were covered.

Candidates' performance analysis

Section 1: Compulsory questions

- Well answered questions were questions 1 (a), 3 and 4.
- Poorly answered questions were questions 2 (a), 5 and 6.
- Most candidates attempted all questions in this section.

Section 2: Alternative questions where candidate had to choose

- Well answered questions were questions 7 Either, 8 Or and 9 Or.
- Poorly answered questions were questions 7 Or, 8 Either and 9 Either.
- Popular question was question 7 Either.
- Unpopular question was question 7 Or.

The number of attempts of the parallel questions 8 and 9 was fairly balanced.

Here, candidates performed better in the following topics: Wave phenomenon, Energy (Graph Analysis) and Electromagnetism (in that descending order); and performed poorly in Optics, Mechanics and Electricity (in descending order).

The mean score was 27.7%, a drop of 0.3% from the 28% registered last year. The lowest score was 0%, while the highest score was 98%, compared with 1% and 91%, respectively, of last year.

The abilities tested:

Year	Knowledge	Comprehension	Higher ability
2020	29%	36%	35%
2021	31%	42%	27%

From the table we can observe that the spread of the abilities tested this year was quite near the ideal 30% - 40% - 30% unlike last year. Hence the examination this year was more candidate friendly than that of last year.

Observations of Examiners

1. The examiners remarked that:

- the examination was easier than that of last year.
- the questions were moderate, straight forward and without any ambiguity.
- the parallel questions were well marched, especially the graph questions.
- the language used was simple, clear and concise.
- most of the questions involving calculations did not necessarily demand a need for calculators.

- all 11 topics were evaluated with a large majority of the basic concepts tested.
- Most candidates' performance indicated that the syllabus was fully covered in schools.
 - Candidates again performed poorly in questions involving ray diagrams.
 - Candidates' performance in experimental description still fell below expectation. Some of them drew poor diagrams, failed to clearly show how measurements were carried out and poorly stated the precautions taken.
 - A good number of candidates still failed to quote the correct units of calculated quantities.
 - Many candidates still had poor phrasing of definitions and laws.
 - There was however, an improvement in the plotting of graphs.

Question by question analysis

This section deals only with questions that were poorly answered.

Paper 2

Question		Comments
1	b) ii)	Most candidates could not correctly state and use the formula, $\theta = \frac{l_{\theta} - l_0}{l_{100} - l_0} \times 100^{\circ}\text{C}$, to calculate the unknown temperature.
2	a) i)	A few candidates failed to state <i>depth</i> , <i>density</i> or <i>acceleration due to gravity</i> as the factors that affect the pressure exerted by a liquid.
	ii)	Almost all candidates failed to add atmospheric pressure to their calculated liquid pressure to obtain the total pressure.
3	a) i)	Many candidates define isotopy rather than defining isotopes as: atoms of the same element with the same atomic number but different mass numbers.
	b) i)	Most candidates failed to realise that an atom is neutral because it contains an equal number of protons and electrons. A few erroneously attributed it to equal number of protons and neutrons
	ii)	A few candidates mistook the nucleon for the nucleus as the part of an atom where its mass is mostly concentrated.
5	a) i)	Most candidates failed to distinguish between intrinsic and extrinsic semiconductors as being pure and impure semiconductors respectively. Some mistook conductors for semiconductors.
	ii)	Most candidates failed to name silicon or germanium as an example of an intrinsic semiconductor and p-type semiconductor or n-type semiconductor as an example of an extrinsic semiconductor. They rather named dopants like aluminium, boron and phosphorus.
	b) i)	A majority of the candidates could not define doping as the addition of small amount of atoms to a pure semiconductor. They erroneously talked of adding atoms to a conductor.
	ii)	Some candidates failed to state the majority carriers for the p-type semiconductor as the holes and for the n-type semiconductor as electrons. They rather wrongly stated them as positive and negative charges or as protons and electrons.
6	a)	Most candidates could not define the moment of a force as the product of the force and its perpendicular distance from the pivot.

Question		Comments
b)		Most candidates failed to realise that a longer spanner has a longer perpendicular distance from the nut (pivot), and so needs a smaller force to produce the moment required to undo the nut. Conversely, the shorter spanner which has a shorter perpendicular distance from the nut (pivot) needs a larger force to produce the same moment of force.
d)		Most candidates did not indicate the weight as originating from the centre of gravity of the body. Some indicated force with arrowhead lines not in contact with the body.
7 a)	i)	A few candidates sketched a displacement-time graph and thus mistakenly took period for wavelength, instead of sketching a displacement-distance graph. Some mistook crest for amplitude instead of the maximum displacement from the rest position. Other candidates could not indicate the wavelength as the horizontal distance between two successive points in phase.
	ii)	In describing the experiment to measure the speed of sound in air, <ul style="list-style-type: none"> • some candidates went off topic and rather described the bell-jar experiment. • some candidates were mixing up the reciprocal firing method and the echo method. • instruments used in measurements were hardly stated: like distance is measured using a tape. • most candidates failed to clearly state the right time interval and the correct distance to be measured. • precautions were poorly stated. Most candidates failed to indicate that averaging the measured quantities or calculated values was a precaution. Most candidates failed to state the precaution needed to eliminate the major source of error.
b)	ii)	Most candidates could correctly state the equation for calculating speed as, $v = \frac{s}{t}$ but failed to multiply the distance by 2 in the substitution.
	iv)	Most candidates failed to state that the factor that affects the speed of sound in water is density or temperature.
c)	i)	Many candidates could not apply the concept of the image distance being equal to the object distance for a plane mirror to solve the problem.
7 d)	i)	Almost all the candidates who answered this question failed to draw rays parallel to the principal axes and refracted by the lens to pass through the principal focus.
	ii)	In describing the experiment to measure the focal of a convex lens using the plane mirror method, <ul style="list-style-type: none"> • some candidates went off topic and rather described the approximate method or lens formula method. • diagrams for the experimental setup were poorly drawn and most of them not labelled. • instruments used in measurements were hardly stated: like distance (focal length) is measured using a ruler. • most candidates failed to clearly state the correct distance to be measured i.e the horizontal distance from the object to the lens. • precautions were poorly stated. For instance, they failed to mention averaging when the experiment is repeated several times.
8 a)	ii)	Most candidates failed to state the principle of conservation of linear momentum as: in a system of colliding bodies, <i>sum</i> of momentum <i>just</i> before collision equal <i>sum</i> of momentum <i>just</i> after collision provided no external <i>resultant</i> force acts on the system.

Question		Comments
	iii)	Most candidates failed to give complete descriptions of real life situations in which this principle is applied.
c)	ii)	In graph plotting, <ul style="list-style-type: none"> some candidates failed to include the units in the labels of their axes. some candidates chose very bad scales. In some there was no scale at all (mapping). <i>A good scale should be a multiple of 2 or 5.</i> some linked individual points instead of drawing the ‘best fit’ line through the points. A ‘best fit’ line one that averages the plotted points.
	iii)	Some candidates could not come out with the units of the slope, hence were unable to deduce the significance of the slope of a velocity-time graph as acceleration. Some failed to make use of the graph in the calculation of the slope, but rather used data points.
	iv)	Most candidates failed to appreciate that the total displacement of the car is the area under the velocity-time graph.
8 d)	iii)	Most candidates failed to state the energy changes that take place when a stretched catapult projects a stone as: from elastic potential energy of the stretched catapult to kinetic energy of the moving stone.
f)	ii)	In graph plotting, <ul style="list-style-type: none"> some candidates failed to include the units in the labels of their axes. some candidates chose very bad scales. In some there was no scale at all (mapping). A good scale should be a multiple of 2 or 5. some linked individual points instead of drawing the ‘best fit’ line through the points. A ‘best fit’ line one that averages the plotted points.
	iii)	Some candidates could not realise that the slope has no units. They were equally unable to deduce the significance of the slope of a load-effort graph as mechanical advantage. Some failed to make use of the graph in the calculation of the slope, but rather used data points.
9 a)	iii)	Most candidates failed to state the quantity of charge as one of the factors that affect the size of the force between two charged bodies.
	iv)	Most candidates failed to state that electrons will flow from B to A because electrons flow from a lower to a higher potential.
b)	ii)	Most candidates could quote and use the expression $Q = Ne$ to determine the number of electrons. A few candidates however failed to correctly manipulate indices.
	iv)	Most candidates could not differentiate between potential difference and electromotive force as: potential difference is the work done in moving a <i>unit charge</i> through a load, while electromotive force is the work done per <i>unit charge</i> stored in a battery.
c)	i)	Most candidates could not draw a ring circuit. Some who attempted failed to draw the 3 wires (live, earth and neutral), connect the socket in the circuit and connect the fuse to the live wire.
9 d)	ii)	Most candidates named the type of force that exists between 2 magnets as an electromagnetic force instead of a magnetic force.
	iv)	Most candidates, instead of drawing the resultant magnetic field pattern between the 2 magnets, were drawing field patterns for individual isolated magnets.
f)	i)	Most candidates were unable to deduce the correct polarity of the coil as the end Y being the N-pole and the end X being the S-pole. Hence could not indicate the correct direction of the field lines. Some candidates simply drew the magnetic field without the

Question		Comments
		coil that produced it.

Suggestions, recommendations and conclusion

Students should do a lot of practice on:

1. graph work.
2. physical quantities and their units.
3. drawing of ray diagrams.
4. describing experiments.
5. working with numbers written in standard form.
6. past GCE question papers.

Students should equally participate actively in the on-going Distance Learning program organised by MINESEC.

Teachers should:

- a) Share the experience got from marking with their colleagues by having workshops during departmental meetings, divisional and regional seminars.
- b) Use the current GCE syllabus and the teaching syllabus when preparing candidates for this examination.
- c) Do practical demonstrations whenever possible.
- d) Generate MCQs after each lesson, following the students' wrong answers, to build up a question bank.
- e) Acquire updated Physics text books and other resource materials especially this Subject Report
- f) Revisit topics taught in lower forms before the students write the GCE.
- g) Write on the chalkboard all technical words, definitions and laws for students to copy.
- h) Use the Competency Base Approach (CBA) in their teaching to make the teaching and learning of the physical principles and concepts relevant.
- i) Endeavour to upgrade teaching/learning resources.
- j) Should contribute and participate actively in the on-going Distance Learning program organised by MINESEC.

To other stakeholders

- a) The government should consult the GCE Board when selecting official textbooks for the subject.
- b) The government should ensure an equitable distribution of Physics teachers in the schools.

- c) School authorities should update the equipment pools of their laboratories and procure pedagogic resources to ease the teaching/learning process.

0585 RELIGIOUS STUDIES

Introduction

- On the strength of examination, the examiners confirmed that the strength of the exam was mediocre.
- The Overall impression of the examination showed that this year's examination was cumbersome for the level of the students. So the paper was more demanding.
- Rubric effects: there were no defects in the rubrics. The instructions were very clearly stated and straight to the point. As a result, there were no consequent effect.
- Syllabus coverage: the syllabus coverage was estimated at 95% for the entire examination. From the candidates work, syllabus coverage was estimated at 35%.
- Mark schemes-effects: the examiners acknowledged that the mark schemes were flexible and comprehensive. The mark schemes were sufficiently detailed and guaranteed that the examiners marked to the same standard.
- Meeting the aims and objectives as set in the syllabus: the questions covered all the objectives stated in the syllabus. They equally attested that the objectives stated in the syllabus were covered as per the scripts and this was by 70%.
- Special difficulty (ies): from the scripts of candidates, there are evidences that the students had some difficulties in handling some sections. Some of the difficulties identified were:
 1. Students got confused between stating and narrating.
 2. Stating and applying the lessons to themselves.
 3. Poor handwriting and language
 4. Students are confused between the Gospel because their knowledge is not from the text but from movies and sermons in church.
 5. Some Islamic students used the Arabic language
 6. Many candidates lacked the technical knowledge in handling the examination booklet.
 7. Some candidates used bullets thus using marks/signs on their scripts which could implicate them.
 8. Basic instructions were not respected by the candidates.
 9. Candidates did not understand key words, some reproduced notes, and jumbled in any order.
 10. Candidates used some short forms.

The actions taken:

1. Teachers should teach the meaning of the key words found in questions.
 2. The components of lessons learnt should be taught to the students. Students should be taught lessons emanating from excerpts or narrative.
 3. The different Gospels should be clearly exposed to the students and the required Gospel – Luke’s gospel should be taught to the students from the Good News or the Revised Standard Version. Students should be encouraged to read the text.
 4. Students should write using paragraphs, instead of bullets.
 5. Teachers should advise students to stop the use of short forms common in the social media as well as answer their questions in an orderly manner and in full sentences.
- Question paper effect(s): there were no defects in the question paper and this did not affect the performance.
 - Question specification: the TOS of the subject is very suitable for the subject as regards the objectives and the content of the subject. There is no need for any change.
 - Examiner’s effects:

Paper by paper analysis

Paper II

This paper is made up of four sections being section one – four.

Question by question analysis

- Popularity: the most popular questions were 1, 2, 4, 7 and 8.
- Expectations of the questions and the short comings of the candidates: the responses from the candidates did not meet the expectation of the questions. The students lacked mastery of the subject matter and misinterpreted the questions.
- Best/worst answers: the best answers came from question 1 and the worst question attempted was

Suggestions/recommendation

To the students, it was recommended that they should;

- own a copy of the Good News and the Revised Standard version of the Bible as well the Holy Qur’an and the Hadiths.

- be regular in class, and try to attend classes organised around.
- not depend on movies and sermons in church.
- master the language of the subjects.
- avoid the long standing presumption of religious studies being an easy going subject which can be written without studying it.
- be aware that Religious Studies is a cut across subject that can assist them in all walks of life.
- Stick to the instructions stated on the paper.

To the teachers, it was recommended that they should;

- teach in synergy as well as partner with others to cover the broad nature of the subject. The Gospel should be taught as early as possible.
- teach in evening schools and schools in their vicinity.
- prepare notes for the students to take home after studies.
- attend seminars on Religious Studies when they are organised.
- lay emphasis on application of lessons learnt in order to create an impact on the students.
- Assist students with technicalities of writing exams like question numbering, presentation of material and respecting rubrics.
- sensitize parents on the importance of the subject.
- let the society know the subject is Religious Studies, not Religion.
- The clergy/religious men and ladies of the subject should use their churches to propagate the subject.

To the parents, it was recommended that they should;

- allow and encourage their children do Religious Studies in schools.
- Religious Studies is one of the subjects that has an added advantage to the upbringing of the students and builds good citizens.
- Parents should ensure that their children study Religious Studies from form one.
- buy Bibles and other study materials for their children.
- enable children have enough study time, be able to adequately control the activities of the children at home, help them draw up good reading time tables as well as give them enough resting time.
- be sensitized on the important role this subject has to play on the children.

Conclusion – Way forward

The teachers and the parents should continuously make Religious Studies relevant, due to its comprehensive nature among the humanities.

590-LOGIC

I. INTRODUCTION:

590 Logic for June 2021 session of the G.C.E examinations was of required structure and format. The whole syllabus was covered, TOS was respected and all the rubrics were clear in both Papers One and Two. The printing of the questions was quite acceptable in paper one but not the case with paper two. In some scripts, part of **question two and all of question three were blank**. The questions were within the reach of the average students in both papers. About 9639 candidates actually sat for 590- Logic for the 2021 session. Some candidates scored very low marks while some had excellent marks. The examination is composed of two papers:

II. PAPER ONE:

This paper was made up of 50 compulsory Multiple Choice Questions (MCQs), covering the whole subject syllabus. The weighting of this paper is (forty) 40% of the total marks for the subject. About 98% of the questions were within the reach of the average students though there were some two (2) three star questions to distinguish the very smart candidates. Two keys were reviewed and the answers were changed. The duration for this paper was (01) one hour (30) thirty minutes. About 40% of the questions tested candidates' basic knowledge of Logic; 30% tested their understanding of logical concepts, 20% tested the application of logical principles 10% while tested higher abilities. The level of difficulties was as follows: 'One star (*) questions-65%; Two star (**) questions-30%; Three star (***) questions-5%. This paper was scored by the scanner. From an overview by the subject panel and examiners at the end of the marking process, it can be estimated that there will be an overall performance of about 70%.

III. PAPER TWO:

This paper is made up of two sections namely: (a) Structural and (b) Problem-solving. Each section is made up of three questions, making a total of six (6) questions in this paper. The candidates are required to answer (05) five questions taking all the three (03) questions in section A and any two from section B. The total score is supposed to be 100 marks. The weighting of the paper is 60% of the total marks for the subject. The duration for this paper was two (2) hours thirty (30) minutes. Some candidates answered more than five questions but all the six answers were marked and considered with the least mark in section B rejected. Five candidates wrote nothing in this paper except the information pertaining to their identification. The overall performance in this paper was estimated to be about 62%. Section A was compulsory while the most popular questions in section B were Q4, \$ Q5 while Q6 was the most unpopular. The mark range in this paper was within 00%-100%. **Twenty seven candidates scored 90 % and above with one candidate scoring 98% exceptionally. Sixteen (16) candidates scored a zero (00%) with two of them who wrote only their names on the answer sheet without attempting any question, one candidate scored 01%, thirteen(13) candidates scored 2 %, and eleven (11) candidates scored 3%.** This paper was quite within the level of the candidates. It was the fourth time that this new structure of paper two was tested.

SOME OBSERVATIONS ABOUT PAPER TWO

In the first place, there was no space for candidates to fill their question numbers on the cover page and on the flap behind. Secondly, the questions started on

the very first page making it difficult for flap folding since the candidates answer on the question paper. Subsequently, the first question should be pushed to the next page so that flap folding could be done without affecting the work of the candidates

The following table gives the test blue print of paper 2

Content: Topics on the syllabus	Process dimension (Assessment objectives)				Question Difficulty level
	Knowledge (A)	Comprehension (B) (understanding)	Application (C)	Higher Ability (D)	
1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.8, 1.9,	Q1c(i)(ii)* Q1d(i) (ii)* Q1e(i)(ii)*	Q1a(i)(ii)* Q1b (i)(ii)*			*
Idem	Q2b (ii)* Q2c(i)*, Q2d(i)(ii)* Q2e(i)(ii)*	Q2b(i)* Q2c(ii)*	Q2a*		*
Idem	Q3a(i)(ii)* Q3b(i)* Q3c(i)*	Q3b(ii)* Q3c(ii)* Q3d(i)(ii)** Q3e(i)(ii)*			*
Idem	Q4b(ii)*	Q4b(i)	Q4a,c,d,e*		*
Idem			Q5a,b, c, d	Q5a(ii)* Q5d(i)*	*
Idem			Q6a(i),(ii)* Q6c & d *	Q6b** Q6e**	**

IV QUESTION BY QUESTION ANALYSIS:

QUESTION ONE:

It was a compulsory question with about 92% of candidates attempting it. Mark range was from 00-20. Actual performance was about 70% due to candidates' poor mastery of the rules of inference as well as special rules of the figures.

RECOMMENDATIONS:

- Teachers should lay emphasis on rules and use practical situations and examples to enable learners master these rules.

QUESTION TWO:

It was a compulsory question with about 98% of candidates attempting. Mark range was from 00-20. Actual performance was about 65% due to candidate's inability to master concepts in Extended Arguments as well as standard form categorical propositions.

RECOMMENDATIONS:

- Teachers should make clear cut distinction between a proposition and Standard form categorical proposition.
- Teachers should clearly distinguish between different forms of Opposition and Education.

QUESTION THREE:

It was a compulsory question with about 90% of the candidates attempting it. Mark range was between 02-20. Actual performance was about 65% probably due to the fact that candidates have not mastered the parts of hypothetical Proposition as well as Extended Arguments.

RECOMMENDATIONS:

- Teachers should always revise every element of the program.
- Teachers should exhaust the syllabus.

QUESTION FOUR:

It was the most popular question attempted by about 98% of the candidates. Mark range was between 0-20. Actual performance was about 65% due to candidates' poor mastery of classification of terms and inability to apply logical principles to practical situations.

RECOMMENDATIONS:

- Teachers should endeavour to use common and practical examples in their classes.
- They should do a lot of practical exercises with the learners on problem-solving techniques.
- Teachers should do regular assessment.

QUESTION FIVE:

It was a popular question with about 95% of the candidates attempting. Mark range was between 0-20. Actual performance was 75% due to the lack of proper knowledge in representing propositions and syllogisms on the Venn Diagram as well as lack of proper mastery of Truth-values and Truth Tables.

RECOMMENDATIONS:

- Teachers should lay emphasis on determining truth-values and the construction of truth table techniques.
- Teachers should teach their students how to represent both propositions and syllogisms on the Venn Diagram.

QUESTION SIX:

It was a very popular question with about 15% of candidates attempting. Mark range was between 0-20. Actual performance was 30% due to candidates' inability to determine truth-values on the truth-tables as well as lack of proper mastery of types of definitions.

RECOMMENDATIONS:

- Candidates should cover all aspects of the syllabus.
- Teachers should do many exercises on determining truth values in Symbolic Logic
- Teachers should do more practical exercises on constructing truth tables in symbolic logic.

GENERAL RECOMMENDATIONS**TO CANDIDATES IN RELATION TO THE EXAMS:**

- Candidates should not speculate because the questions cover the entire syllabus.
- Candidates should buy Logic textbooks and do as many exercises as possible so as to better master the concepts and rules.
- Candidates should be very regular and consistent in school and attend classes because the topics are inter-related in Logic.
- Candidates attribute equal importance to Logic like other subjects.

TO TEACHERS:

- Teachers should attend and actively participate in both Regional and National Pedagogic Seminars.
- Teachers should acquire the most appropriate text books and didactic materials for effective teaching in Logic.
- Teachers should identify problem areas and network with pedagogic inspectors, subject panel members and senior colleagues.

- Teachers should teach Logic with concrete examples and give more exercises and less notes.
- Teachers should acquaint themselves and their students with the structure of Logic in the *G.C.E.* more especially paper two.
- Teachers should acquire skills and techniques in question setting so as to set up-to-date questions in preparation for the *GCE*.
- Teachers should exhaust the syllabuses both in their teaching and evaluation.
- Teachers should teach per *CBA*.
- Teachers should make the subjects admirable and sellable.
- Teachers should always revise form three and four work while in form five.

TO THE SCHOOL ADMINISTRATION:

- School proprietors\ Principals should incorporate Logic as one of their teaching subjects in their different schools from Forms 3-5, since Logic helps in the understanding of other subjects like Mathematics, Computer Science, English Language etc.
- The official time for the teaching of Logic should be respected. Form 3 should have three periods, Form 4 three periods and Form 5 three periods per week. These periods should also be slated at independent hours during which both Arts and Science students are free to offer Logic.
- School Administrators should encourage both Arts and Science students to do Logic and write it in the *G.C.E.*
- School authorities are strongly advised to send and sponsor their Philosophy/Logic teachers to attend Regional and National seminars for capacity building.
- School authorities should encourage the students to buy the required textbooks in Logic so as to facilitate the teaching and learning process given that it deals with exercises.
- School authorities should sensitize parents on the need and the importance of Logic to their children.
- School authorities should sensitize students and parents to know that Logic is recognized and used in state exams.
- School administrators should give equal value to all subjects on the timetable. Logic should not be treated as a subsidiary subject.

TO PARENTS:

- Parents should encourage and follow up their children to offer Logic because it plays a vital role in the Arts and Sciences.

- Parents should buy the required textbooks for their children.

0595 COMPUTER SCIENCE

Overview of the Papers with respect to prescription by the syllabus

Computer Science Ordinary Level is divided in to three papers:

- **Paper 1–Multiple Choice:**

Paper 1 is made up of 50 MCQs constituting 30% of the total score in 0595 Ordinal Level. Candidates were expected to answer all questions.

- **Paper 2–Essay-type questions:**

Paper 2 is made of 7 essay-type questions. Each question is marked on 20 marks. Candidates were expected to answer 5 questions. This paper constitute 40% of the total score for 0595 O/L

- **Paper 3–Practical:**

Paper 3 is a practical examination paper. It was made up of three tasks. Candidates were expected to answer all questions. Answers to the various tasks are to be presented in both hard and soft copies. There is also the school base assessment SBA component that is part of this paper. The SBA is scored on 10 while the other component is scored on 50. This paper constituted 30% of the total score for 0595 CSC O/L.

Scoring and syllabus coverage of the Various Papers

Paper 1, MCQ, was marked using the Optical Mark Reader (OMR) and so this paper was not examined by examiners this year. Syllabus coverage was rated at 90%.

Paper 2: This Paper tested all major sections of the examination syllabus, giving 97% coverage.

Paper 3: This paper tested three sections of the syllabus alongside the School Based Assessment (SBA) which is dedicated to practical work giving 100% coverage of the sections outlined in the Examination Syllabus.

Examination Questions

- There were no typographic errors and the printing quality was good.
- There was no particular questions that were completely avoided by candidates although some questions were attempted by fewer candidates.

General Appraisal

The examination consisted of three papers namely Paper1, Paper2 and Paper3.

- Paper1 contained 50 compulsory Multiple Choice Questions (MCQs) drawn from the whole syllabus.
- Paper 2 contained 7 questions from which candidates were supposed to answer 5. All questions were scored on a maximum of 20 marks each. Questions in this paper are crafted in a manner that any 5 questions cover a good percentage of the examination syllabus.
- . Paper 3 was a practical examination comprising 3 tasks and a SBA component. The three tasks are based on: Word Processing, Spread Sheets and programming in C or Pascal programming language.

Paper 2

From the grid below

- Questions 3 and 6 were attempted by most candidates. Most of the candidates scored highly in question 6.
- Question 7 was least attempted and most candidates scored less than 10 out of 20.
- On the average, more than 12000 candidates out of about 20000 candidates attempted all the questions. An indication that no question was totally avoided and the syllabus coverage by candidate was above average.

From the bar chart showing overall performance of candidate shown below

- The graph is skewed to the right. An indication that most candidates scored below average. That is fewer candidate scored above average in paper two.

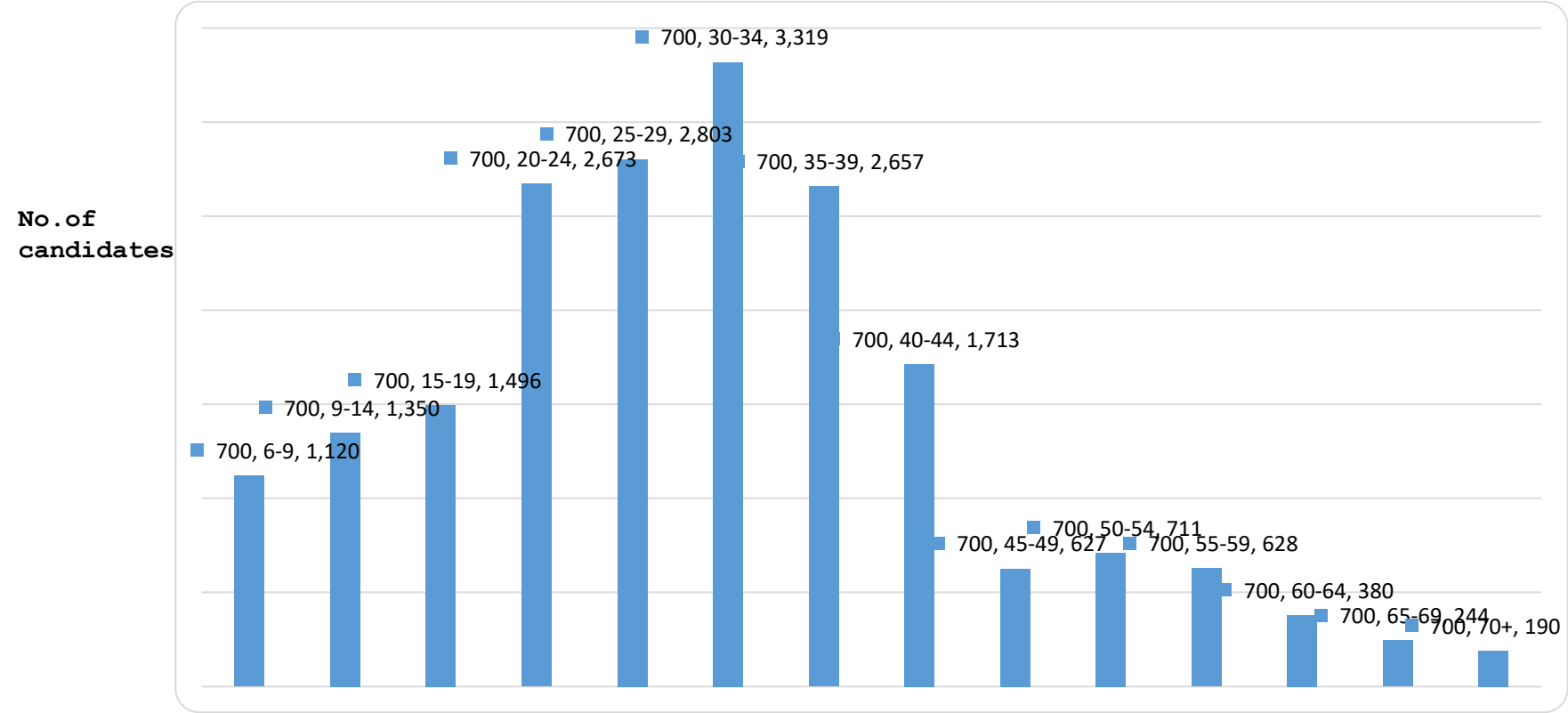
Statistics Grid For Paper 2

Question No.	Score range											Number of candidates who Attempted Question	No. With score Total >= 10
	0	1-2	3-4	5-6	7-9	10	11-12	13-14	15-16	17-18	19-20		
Q1	<i>1764</i>	<i>1754</i>	<i>2296</i>	<i>2340</i>	<i>2818</i>	<i>953</i>	<i>953</i>	<i>581</i>	<i>330</i>	<i>212</i>	<i>121</i>	<i>14122</i>	<i>3150</i>
Q2	<i>1704</i>	<i>2727</i>	<i>1921</i>	<i>1968</i>	<i>2369</i>	<i>647</i>	<i>861</i>	<i>700</i>	<i>392</i>	<i>175</i>	<i>62</i>	<i>13526</i>	<i>2837</i>
Q3	<i>1500</i>	<i>2210</i>	<i>2647</i>	<i>2943</i>	<i>3193</i>	<i>872</i>	<i>1199</i>	<i>764</i>	<i>438</i>	<i>244</i>	<i>88</i>	<i>16098</i>	<i>3605</i>
Q4	<i>702</i>	<i>2107</i>	<i>2324</i>	<i>2501</i>	<i>2138</i>	<i>678</i>	<i>713</i>	<i>446</i>	<i>304</i>	<i>155</i>	<i>59</i>	<i>12127</i>	<i>2355</i>
Q5	<i>1331</i>	<i>1791</i>	<i>1912</i>	<i>2177</i>	<i>2467</i>	<i>812</i>	<i>1255</i>	<i>716</i>	<i>484</i>	<i>223</i>	<i>61</i>	<i>13229</i>	<i>3551</i>
Q6	<i>520</i>	<i>1036</i>	<i>1154</i>	<i>1622</i>	<i>2794</i>	<i>1415</i>	<i>2446</i>	<i>1951</i>	<i>1150</i>	<i>739</i>	<i>539</i>	<i>15366</i>	<i>8240</i>
Q7	<i>1459</i>	<i>2036</i>	<i>1810</i>	<i>1541</i>	<i>1681</i>	<i>585</i>	<i>603</i>	<i>412</i>	<i>253</i>	<i>115</i>	<i>75</i>	<i>10570</i>	<i>2043</i>
Total	<i>8,980</i>	<i>13,661</i>	<i>14,064</i>	<i>15,092</i>	<i>17,460</i>	<i>5,962</i>	<i>8,030</i>	<i>5,570</i>	<i>3,351</i>	<i>1,863</i>	<i>1,005</i>		<i>25781</i>

Counts of score per Candidate

Score Range	0-5	6-9	9-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+
No. Of candidates	700	1,120	1,350	1,496	2,673	2,803	3,319	2,657	1,713	627	711	628	380	244	190
Total Scripts							19,911								

Bar chart showing performance of candidates in Paper 2 (score of 100).



Score range on 100

The Bar chart above is skewed to the right indicating that fewer candidates perform well in paper two. Hence performance in paper two was below average.

Paper 3

From the grid below

- Tasks 1 and 2 were attempted by most candidates.
- On the average, more than 19000 candidates out of about 20000 candidates attempted all the tasks. An indication that no Task was totally avoided and the syllabus coverage by candidate could be rated at 90%.

From the bar chart showing overall performance of candidate shown below

- The graph is skewed to the left. An indication that most candidates scored above average. That is most candidate scored above average in paper 3.

Statistics Grid For Paper 3

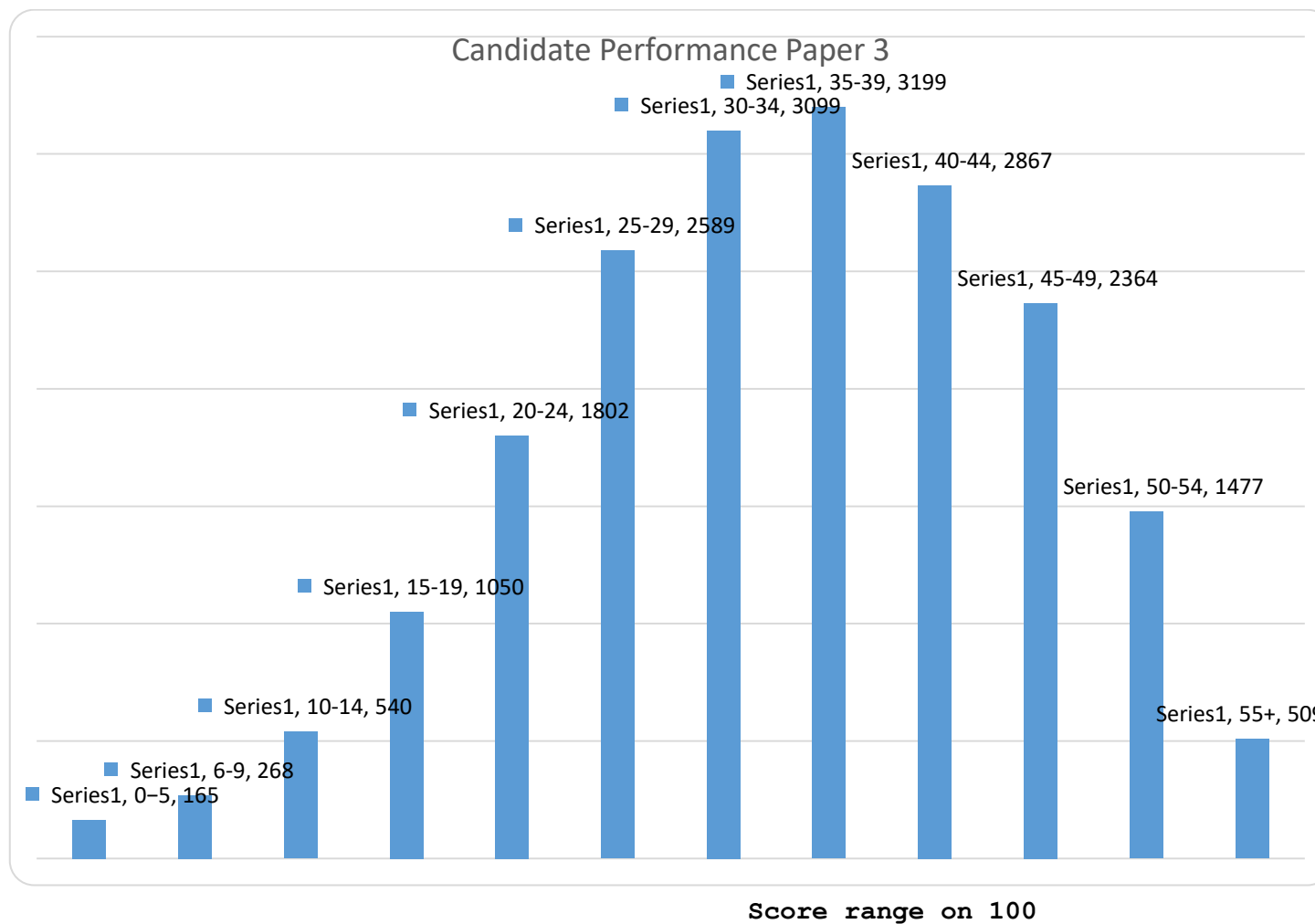
Task No.	Score range											Number of candidates who Attempted Task
	0	1-2	3-4	5-6	7-8	9-10	11 - 12	13 - 14	15-16	17-18	19 - 20	
T1	214	208	302	654	1173	1733	2418	3208	3810	3402	2400	19522
T2	916	632	1400	1885	2416	2721	2242	1950	1762	1816	2205	19945

T3	4715	3873	4840	2651	1884	1080	23	21	21	16	7	19131
SBA	2295	299	578	1994	5769	8400	69	8	0	0	0	19412
Total	8140	5012	7120	7184	11242	13934	4752	5187	5593	5234	4612	78010

Counts of score(on 60) per Candidate

Score Range	0-5	6-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55+	Total Scripts
No. Of candidates	165	268	540	1050	1802	2589	3099	3199	2867	2364	1477	509	19929

No. of
candidates



Bar chart skewed to the left indicating good performance in paper three.

Q1	(a)(i)	Candidates were expected to state the full meaning of SDLC, RAM, CPU, BIOS and POST. Many candidates attempted this question but their answers had a lot of spelling errors.																									
	(ii)	They were expected to define a computer port in terms of connection port or interface between computer and peripheral devices. Most candidates defined this term poorly. Most of the definitions replace interface with hole on a computer.																									
	(iii)	The candidates were expected to name any three computer ports and state a device that can be connected. Most candidates attempted this question and give the expected answers.																									
	(b)(i)	They were expected to explain what they understand by the term Network Topology. Most candidates gave the expected answer. A few got confused and instead gave the definition of a network.																									
	(ii)	Candidates were to draw labelled diagrams of a star and bus network topologies. Most candidates did not draw the star topology correctly. They drew a star structure without a central device such as the server or hub.																									
	(iii)	Most candidates used diagrams to answer this question, however, they were expected to state the differences in terms of their advantages or disadvantages.																									
Q2	(a)(i)	It was evident from candidate's poor performance in this question that, most teachers do not teach programming. Candidates who attempted this question did not do a dry run and so could not state expected output.																									
	(ii)	Only very few candidates gave the expected answer which is lines 3.0 to 3.1.3.																									
	(iii)	Again, only few candidates attempted this question. Majority in this small group could not translate the pseudocode correctly to Flowchart. They could not represent the loop correctly. Some interchanged the role of rectangle and parallelogram.																									
	(iv)	The expected answer was 15, 9, 12 because the inputs are positives. Most candidates rather did the calculations manually instead of using the algorithm.																									
	(b)	A good number of candidates answer this question correctly.																									
Q3	(a)(i)	The candidates were expected to recommend a printer for printing photographs. The expected answer was a Non-Impact Printer since it has a higher print quality over impact printers. Most candidates gave the correct printer but could not justify their choice.																									
	(ii)	Candidates were expected to state what they understand by Hard copy, Impact printer, Non-impact printer and Print quality. They could not explain print quality correctly. They were expected to define print quality in terms of pixels, dot per inch, eligibility of the print etc.																									
	(iii)	In distinguishing between an Impact and non-impact printer, the candidates were expected to explain the technology used during printing. Candidates rather gave their definitions.																									
	(b)(i)	A majority of the candidates gave the correct expected answer which is OR, AND & NAND gates.																									
	(ii)	Candidates were expected to complete the table below: <table><tr><td>X</td><td>Y</td><td>P</td><td>Q</td><td>R</td></tr><tr><td>0</td><td>0</td><td></td><td></td><td></td></tr><tr><td>0</td><td>1</td><td></td><td></td><td></td></tr><tr><td>1</td><td>0</td><td></td><td></td><td></td></tr><tr><td>1</td><td>1</td><td></td><td></td><td></td></tr></table> <p>Most candidates could not fill column R correctly. They treated R as if it were the output of an</p>	X	Y	P	Q	R	0	0				0	1				1	0				1	1			
X	Y	P	Q	R																							
0	0																										
0	1																										
1	0																										
1	1																										

		AND gate.
	(iii)	Most candidates got the logic expressions correctly. The expected answers were $P = X + Y$, $Q = X.Y$ and $R = (X + Y)^C$. Some candidates rather expressed R in terms of P and Q which was not accepted.
Q4	(a)(i)	Candidates were expected to say Gantt Charts are used to schedule, and manage tasks in a project in a graphical manner. However, most candidates had difficulties in answering this question. Their answers did not highlight the fact that a Gantt Chart is a graphical tool.
	(ii)	A majority of the candidates attempted this question and gave the expected answer. Only a few could not draw the correct chart.
	(iii)	Only a few candidates could define the terms lag time and critical path correctly. From the responses given, we could deduce that this topic was not properly taught.
	(iv)	All the candidates that failed question 4(a)(ii) also failed this question.
	(b)(i)	Most candidates correctly gave the meaning of ISP and what a protocol is.
	(ii)	A majority of the candidates could not give an example of the correct protocol used to govern the movement of data across the Internet.
	(iii)	The candidates were expected to explain the concepts Primary Key, Field, File and Query as used in database. This question was poorly answered. A small fraction of the candidates managed to explain the Primary key correctly.
Q5	(a)(i)	Some candidates confused hacking with cracking. Hacking is an unauthorised access to a computer system or any of its resources.
	(ii)	The expected answers were Firewall, Password and Antispyware. Most candidates gave encryption and antivirus as answers which were not correct.
	(iii)	This question was attempted by many candidates. Majority of these candidates gave the expected answers.
	(b)(i)	Candidates were to convert $2C$ to binary. They were expected to convert each digit separately to binary and then combine the result. Most candidates rather converted from hexadecimal to decimal before finally converting to binary.
	(ii)	Candidates were to convert 67_8 to hexadecimal. They were expected to convert each digit separately to binary and then reconvert to hexadecimal. Most candidates rather converted from octal to decimal before finally converting to hexadecimal.
	(iii)	The candidates were expected to add the binary numbers 1011 and 1101. Most candidates failed this question because they did not know that $1 + 1 + 1 = 11$ in binary.
	(c)(i)	Some candidates confused file backup with file recovery or archiving. File backup is copying a file into an external storage medium for recovery purposes. Most candidates gave the correct characteristics of a backup device.
	(ii)	Candidates were expected to explain the term portability in relation to storage device and

		software. Portable storage devices are those light weight and small in size so that they can easily be carried along. Only very few candidates gave this answer. Majority look at portability in terms of storing files of different formats. However, most candidates got the explanation for software portability correct, that is, the ability for software to run on different platform.
Q6	(a)(i)	Candidates were to distinguish between serial and parallel data transmission with the aid of diagram. Most of the candidates attempted this question. Their responses failed to mention role bits play in the data transmission.
	(ii)	Almost all candidates attempted this question. A majority of the candidates got this question correct.
	(b)(i)	Candidates were expected to explain the functions of the main three parts of the CPU. Some candidates took CPU for system unit and had to fail the question. The expected answers were ALU, Control Unit and Registers.
	(ii)	The expected answers here were, Fetch, Decode and Execute. However, most candidates had spelling errors.
Q7	(a)(i)	Candidates showed a mastery of the technology used by the various computer generation.
	(ii)	Candidates also showed a mastery of the disadvantages of machine code. However, most candidates could not distinguish between compilers and interpreters.
	(b)(i)	This question was attempted by almost all the candidates. However, their answers were full of spelling errors.
	(ii)	Most of the candidates gave the expected answers. Only few gave funny answers such as the eyes, nerves etc.
	(iii)	Candidates showed a mastery of the various ways to prevent RSI.
	(c)(i)	Candidates could give the advantages but disadvantages. Most of them were rather comparing email to postal service.
	(ii)	Candidates showed a mastery of the difference between Intranet and Extranet.

Paper 3

Task1	Candidates were required to use a Word Processor to carry out this task. Some candidates had problems in identifying the heading of the text, applying the exact font size of 13 and also adding the required line spacing. Many could not use bullets to itemize the list. Table insertion was done correctly in the most part but sometimes at the wrong position and having incomplete data. The teaching of these concepts should be stressed during teaching.
Task2	Candidates were required to use a Spread Sheet to carry out this task. Some candidates had difficulties inserting the correct formulae. Some did write down the formulae or functions used in the answer booklets as expected. Use of equality sign to start a formula/function posed a problem to some candidates. In drawing charts, many candidates find it difficult to select the correct sets of non-adjacent data. Teachers should lay emphasis on the correct use of formulae in Spread Sheet.
Task3	Candidates were required to use an IDE such as C or Pascal. Some candidates found it difficult to interpret programs and their results. It was noticed that supervisors did not know how to print the candidates' final work (compiled program) from the integrated development environment because only screen shoots were printed into hard copies.

	Screen shots could be very misleading. C programming language or Pascal programming language is supposed to be taught to students preparing to write computer science 0595. Supervisors are expected to master how to extract the candidate's file from the bin folder of Pascal program and add it to the candidate's examination folder as evidence of the work done by the candidate. Teachers should get students to do more programming exercises in a given programming language or environment.
SBA	Candidates used varied documents to show proof of school projects. Some presented SBAs done in manuals while others presented softcopies/ hardcopies of mini-projects. Teachers are called upon to be objective when evaluating these projects.

Recommendations to improve candidate performance:

- (1) Schools should provide adequate hardware (such as Computer system and printers) for the practical examination.
- (2) There should be sufficient practical classes for candidates before the examination.
- (3) Seminars should be organised to train teachers on creating and evaluating mini-projects