# GENERAL RÉSUMÉ OF THE CHIEF EXAMINERS' REPORTS FOR THE WEST AFRICAN SENIOR SCHOOL CERTIFICATE EXAMINATION FOR SCHOOL CANDIDATES, 2020

# **RÉSUMÉ OF BUSINESS SUBJECTS**

## 1. THE STANDARD OF THE PAPER

The Chief Examiners reported that the standard of the papers was comparable to that of the previous years. They reported that the questions were unambiguous and covered all the topics in the syllabuses.

## 2. PERFORMANCE OF CANDIDATES

Except for Financial Accounting, the Chief Examiners for Business Management, Clerical Office Duties, Principles of Cost Accounting and Typewriting reported that candidates' performance was lower than that of the previous year.

## 3. **SUMMARY OF CANDIDATES' STRENGTHS**

The Chief Examiners for the Business subjects noted the following as candidates' strengths:

## (1) FINANCIAL ACCOUNTING 2

Candidates' ability to:

- (a) list the source documents used for the specified transactions;
- (b) explain the term "not-for-profit-making organisation";
- (c) outline the circumstances that would give rise to the creation of goodwill in partnerships;
- (d) classify transactions under the headings: statement of capital, statement of recurrent expenditure and statement of revenue correctly;
- (e) prepare the Manufacturing Account.

## (2) PRINCIPLES OF COST ACCOUNTING 2

Candidates' ability to:

- (a) state the reasons for cost classification;
- (b) list the documents used in the store;
- (c) explain the purpose of retention in cost accounting;
- (d) distinguish between joint products and by products;
- (e) compute the wage rate for normal work.

## (3) BUSINESS MANAGEMENT 2

Candidates' ability to:

- (a) state the importance of planning to an organisation;
- (b) explain the reasons for which managers do not delegate in an organisation;
- (c) explain agency and the duties of an agent;
- (d) list the activities involved in the recruitment process.

## (4) TYPEWRITING

Candidates' ability to:

- (a) show consistency in style of display in the production tasks;
- (b) use the correct date for the letter;
- (c) address the envelope very well;
- (d) use the correct line spacing in letter and tabulation;
- (e) use capitalization in certain cases;
- (f) minimise typographical errors.

## (5) CLERICAL OFFICE DUTIES 2

Candidates' ability to:

- (a) state importance of indexing;
- (b) state types and features of bank accounts;
- (c) explain benefits of welfare services a manager should provide for his employees;
- (d) state the attributes of office staff.

## 4. SUMMARY OF CANDIDATES' WEAKNESSES

The Chief Examiners observed the following weaknesses in candidates' work for the Business Subjects.

## (1) FINANCIAL ACCOUNTING 2

Candidates' inability to:

- (a) describe the balance on the accounts;
- (b) identify the source document of salaries;
- (c) completely explain entrance fee and life membership fee as sources of funds for not-for-profit-making organisations;
- (d) list books of accounts used in public sector accounting;
- (e) deduce sales and purchases from incomplete accounting records.

# (2) PRINCIPLES OF COST ACCOUNTING 2

Candidates' inability to:

- (a) classify various costs according to their groups;
- (b) explain the importance of fixing the Economic Order Quantity, re-order level, maximum stock level, minimum stock level and buffer stock;
- (c) compute the over or under absorbed overheads for the different departments;
- (d) prepare a cash budget;
- (e) compute the total cost of operation under the two different scenarios i.e. where the existing workers are allowed to do overtime and where more workers are engaged at normal rate.

## (3) BUSINESS MANAGEMENT 2

Candidates' inability to:

- (a) apply their knowledge in the various topics they have learnt to answer the case study;
- (b) explain job description and job specification;
- (c) explain types of bank accounts;

## (4) TYPEWRITING

Candidates' inability to:

- (a) type accurately in the speed test;
- (b) use dashes appropriately;
- (c) distinguish the Cedi sign and the Cent sign;
- (d) align figures and items accurately;
- (e) center headings accurately;
- (f) underscore headings appropriately;
- (g) use punctuation signs appropriately.

## (5) CLERICAL OFFICE DUTIES 2

Candidates' inability to:

- (a) apply their knowledge in the various topics they have learnt to answer the case study;
- (b) identify and explain channel of communication;
- (c) apply the management principle of delegation.

## 5. SUGGESTED REMEDIES

Besides advising tutors and candidates to be conversant with the syllabuses, the recommended textbooks and the Chief Examiners' reports, the Chief Examiners suggested the following remedies:

#### (1) FINANCIAL ACCOUNTING 2

- (a) Candidates should prepare departmental accounts showing the total column;
- (b) The theoritical aspect of public sector accounting such as books of accounts and features of public sector accounting should be treated in detail;
- (c) Candidates should be taught how to deduce sales and purchases figures from incomplete accounting records.

## (2) PRINCIPLES OF COST ACCOUNTING 2

- (a) The purpose and importance of basis of cost classification should be well explained to candidates.
- (b) Candidates should be taught to understand that the difference between overhead absorbed and actual overhead incurred is either over absorbed or under absorbed overhead.
- (c) Candidates should be taught cash budget preparation especially the timing of the receipts from debtors and payment to creditors.
- (d) Candidates should be taught to apply the principles in labour remuneration to compute the cost of labour to include all expenses on workers.

## (3) BUSINESS MANAGEMENT 2

- (a) Candidates should be helped to master how to apply principles learnt to answer case study.
- (b) Candidates should be taught the various concepts and terms such as job description and job specification.
- (c) The teaching of the various types of accounts banks operate should be improved.

## (4) TYPEWRITING

- (a) Candidates should be given ample time to practice in order to be conversant with the typewriter.
- (b) Priority should be given to the typing of production tasks.
- (c) After typing, candidates should endeavour to go over their work to correct typographical errors, ensure proper alignment, proper use of capitalization and do correct reading and interpretation of manuscript correction signs.

## (5) CLERICAL OFFICE DUTIES 2

- (a) Candidates should try their hands on past questions.
- (b) Candidates should be helped to master the application of principles learnt to answer case study.
- (c) Candidates should be taught the principle and importance of delegation.

# **RÉSUMÉ OF HUMANITIES**

## 1. STANDARD OF THE PAPER

The Chief Eaminers for the subjects under the Humanities unanimously reported that the standard of the question paper was comparable to that of the previous year.

## 2. PERFORMANCE OF CANDIDATES

While there was improvement in performance in Music 3A, Music 3B, Christian Religious Studies, History and Government, there was no remarkable change in performance in Geography 2 and Geography 3, Economics 2, Social Studies 2 and Islamic Studies 2 as compared to that of last year.

#### 3. A SUMMARY OF CANDIDATES' STRENGTHS

The Chief Examiners for the various subjects identified the following areas as strengths of candidates this year:

## (1) SOCIAL STUDIES 2

The Chief Examiner for Social Studies 2 reported that majority of the candidates adhered to the rubrics of the papers and identified the following topics as strengths:

- (a) The socio-cultural practices that promote societal developments.
- (b) Agencies responsible for the socialization of the child.
- (c) Sources of conflict in the Ghanaian society.
- (d) The names of financial institutions operating in Ghana and the benefits of financial security to the individual.

# (2) GEOGRAPHY 2

The Chief Examiner for Geography 2 identified the following topics as strengths of the candidates:

- (a) Problems limiting the development of Plantation Agriculture in West Africa and solutions to the problems identified.
- (b) Functions of cities and factors that favour the growth of settlements.

#### (3) GEOGRAPHY 3

The Chief Examiner for Geography 3 identified the following areas as strengths of the candidates:

- (a) Construction of divergent bar graphs;
- (b) Factors that affect climate, and characteristics of Equatorial climate;
- (c) Definition of pollution, sources of pollutants and effects of atmospheric pollution.

#### (4) GOVERNMENT 2

The Chief Examiner for Government 2 stated that:

- (a) Most of the candidates were able to outline the ways in which public opinion is measured.
- (b) A good number of candidates were able to identify the challenges faced by the United Nations Organization and were able to provide suitable examples as well.

#### (5) HISTORY 2

The Chief Examiner for History 2 mentioned that:

- (a) Candidates were able to name the core group of people who founded the Western Sudanese states and were also able to highlight the features of the Western Sudanese Political system.
- (b) Most of the candidates were able to list remarkably the non-documentary sources of History and were also able to outline reasons for the use of written documents as sources of History.

## (6) MUSIC

The Chief Examiner for Music 2 reported that candidates answered questions on the following topics very well:

- (a) Forms in traditional African Music;
- (b) Western music history;
- (c) Black music in diaspora.

The Chief Examiner for Music 3A reported that the following topics were the strengths of candidates:

- (a) Rhythmic dictation;
- (b) Melody Writing.

The Chief examiner for Music 3B reported that candidates answered questions on the following areas quite well:

- (a) Set pieces selected by candidates were well delivered;
- (b) Technical exercises.

#### (7) CHRISTIAN RELIGIOUS STUDIES 2

The Chief Examiner reported that the candidates answered questions on the following topics very well:

- (a) The creation story and how humans have destroyed God's creation;
- (b) The narration on how David resisted taking the life of Saul at the wilderness of Ziph.

## (8) ISLAMIC STUDIES 2

The Chief Examiner reported that the candidates answered questions on the following topics very well:

- (a) The Performance of Tayammum (sand/dry) ablution;
- (b) enumerating the six authentic works on Hadith

## (i) ECONOMICS 2

The Chief Examiner stated that:

- (a) Most of the candidates responded appropriately to the data response question on Production Theory;
- (b) Most of the candidates could define the concepts of migration, immigration and emigration.

# 4. <u>SUMMARY OF CANDIDATES' WEAKNESSES</u>

## (1) SOCIAL STUDIES 2

The Chief Examiner for Social Studies 2 reported that some candidates had difficulty in answering questions on the following topics:

- (a) Abraham Maslow's Hierarchy of needs;
- (b) How Ghanaians misconstrue the implication of independence.

## (2) GEOGRAPHY 2

The Chief Examiner for Geography 2 detected that:

- (a) Some of the candidates could not identify the problems hindering the development of seaports in Ghana.
- (b) Most of the candidates could not name sources of thermal and renewable energy in Ghana and could not also suggest solutions to the problems hindering the development of thermal energy in Ghana.

## (3) GEOGRAPHY 3

The Chief Examiner for Geography 3 noted that:

- (a) Some of the candidates had difficulty drawing the cross profile along the two specified lines.
- (b) Some candidates could not highlight the differences and similarities between alluvial fan and delta.

#### (4) GOVERNMENT 2

The Chief Examiner for Government 2 observed that:

- (a) Most candidates could not highlight the features of Feudalism.
- (b) Most of the candidates could not differentiate between the Crown colony and the Protectorate.

#### (5) HISTORY 2

The Chief Examiner for History 2 mentioned that:

- (a) Candidates could not identify the achievements of Pharaoh Narmer in Egypt.
- (b) Candidates could not identify the socio-economic problems Ghana faced between 1957 and 1991.

#### (6) MUSIC

The Chief Examiner for Music 2 reported that some candidates had difficulty in answering questions on the following topics:

- (a) Rudiments and theory of music;
- (b) Modulation;
- (c) Cadences;
- (d) Set works on Bogatella in F by Beethoven OP 33 No. 3.

The Chief Examiner for Music 3A reported that some candidates had difficulty in the following areas:

- (a) Rhythmic notation;
- (b) Two parts writing (upper part);
- (c) Cadences and Modulation.

The Chief Examiner of Music 3B reported that some candidates had difficulty in the following areas:

- (a) Sight reading;
- (b) Breath control and diction.

## (7) CHRISTIAN RELIGIOUS STUDIES 2

The Chief Examiner for Christian Religious Studies 2 stated that:

- (a) Most of the candidates could not outline God's instructions to Joshua on his assumption of leadership over Israel.
- (b) Some of the candidates could not narrate Solomon's prayer during the dedication of the Temple.
- (c) Most of the candidates could not recount the call of the disciples as narrated by Luke.

#### (8) ISLAMIC STUDIES 2

The Chief Examiner for Islamic Studies 2 noted that:

- (a) Some candidates had difficulty providing satisfactory responses to the marital life of the Prophet.
- (b) Most of the candidates could not complete the Suratun-Nasq (Q.114) translation from the third verse.

(c) Some of the candidates repeated facts and provided illogical arrangement of their work.

## (9) ECONOMICS 2

The Chief Examiner for Economics 2 observed that:

- (a) Most of the candidates could not identify the functions of money and could not explain how a rise in prices of goods and services affect the functions of money.
- (b) Some of the candidates could not explain the effect of inflation on money as a store of value, as standard of deferred payment and as, balance of payments.

## 5. SUGGESTED REMEDIES

The Chief Examiners highlighted the following remedies for improvement of performance of candidates:

- (a) Candidates should devote time to the reading of relevant literature to enrich understanding of topics in their subject areas;
- (b) Candidates of History should have a firm understanding of the socio-economic problems Ghana faced between 1957 and 1991;
- (c) Teachers need to engage students of Music to focus on sight reading lessons from the early stages of the course;
- (d) Students of Christian Religious Studies should be encouraged to adequately read their text books thoroughly, especially the recommended Bible for the study of the subject (RSV BIBLE);
- (e) Geography teachers should give a lot of attention to cross-section drawing and problems hindering the development of sea ports in Ghana;
- (f) Candidates of Islamic Studies should pay attention to the narratives of the marital life of the Prophet;
- (g) Candidates of Economics should be assisted to understand the effect of inflation on money as a store of value and balance of payment;
- (h) Candidates of Government should be assisted to understand the features of Feudalism.

# **RÉSUMÉ OF LANGUAGES**

## 1. STANDARD OF THE PAPER

The Chief Examiners reported that the standard of the papers was the same as that of the previous years.

There were no ambiguities in the questions and they were within the requirements of the syllabuses.

## 2. <u>PERFORMANCE OF CANDIDATES</u>

The Chief Examiners stated that candidates' performance in the various subjects varied. The Chief Examiners for English Language 2, Dagaare 2, Dangme, Ewe, Twi (Asante), Twi (Akuapem), Fante, and Ga indicated that there was an improvement in the performance of candidates. However, the Chief Examiners for Literature-in-English, French, Gonja 1 and 2, Kasem 2, and Nzema 2, noted that the performance declined.

## 3. SUMMARY OF CANDIDATES' STRENGTHS

The Chief Examiners noted that candidates performed well in the following areas:

#### (1) Adherence to Rubrics

The Chief Examiners for English Language 2, French 2, Fante 2 Literature in English, and Twi (Asante) 2, reported that a good number of candidates adhered to the rubrics of the papers.

#### (2) Good Organization of Essays

A good number of candidates for English Language 2, French 2, Ewe 2, Dangme 2, Ga 2 and Twi (Asante) 2, presented well-organised essays. Candidates demonstrated mastery over the features of the various forms of essays and achieved unity and coherence in their presentations.

## (3) Appropriate Use of Language/Clarity of Expression

The Chief Examiners noted that the candidates for French 2, Ga 2, Ewe 2, Gonja 2 and Twi (Asante) 2 had improvement in expression. They reported that candidates used appropriate vocabulary (with words spelt correctly) to write acceptable sentences in their essays.

## (4) Length of Essays

The Chief Examiners for English Language 2, Twi (Asante) 2, Ewe 2, Ga 2, Gonja 2 and Dangme 2 commended candidates for their ability to write the required number of words for their essays.

## 4. **SUMMARY OF CANDIDATES' WEAKNESSES**

The following weaknesses of candidates were identified by the Chief Examiners of the various languages.

#### (1) Poor use of language

The Chief Examiners for English Language 2, Twi (Asante) 2, Fante 2, French 2, Nzema 1 and Fante 1 lamented the rate at which faulty constructions, spelling errors and poor grammar were found in candidates' responses. Similarly, the Chief Examiners for Ewe 2 and Ga 2 expressed worry about the use of the spoken form of the language instead of the standard one. They lamented the misuse of personal pronouns in the language.

#### (2) Poor Stock of Vocabulary

The Chief Examiners for French 2, Dangme 2, Gonja 2 observed that candidates' stock of vocabulary was limited. As such, they wrote their essays with a lot of English words in it. This made it very difficult to understand some of the sentences they constructed. Similarly, the Chief Examiner for English Language 2 lamented the wrong use of words and poor punctuation in the essays of the candidates.

## (3) Poor Skills in Answering Comprehension Questions

It was a worry to the Chief Examiner for English Language 2 that some candidates lifted portions of the comprehension passages, which were irrelevant, as answers to some questions.

#### (4) Length of Answers

While the Chief Examiners for Gonja 2 and Dangme 1 indicated that some candidates provided short answers that lacked substance, the Chief Examiner for French 2 lamented the rather long essays written by some candidates which resulted in they losing marks.

## 5. SUGGESTED REMEDIES

The following remedies were recommended to address the weaknesses identified:

- (1) teachers should endeavour to teach all aspects of the syllabus to enable candidates to tackle all aspects of the questions;
- (2) students should be encouraged to read widely on a variety of topics to enrich their stock of vocabulary;
- (3) workshops should be organized for language teachers to update their knowledge in content and pedagogy;
- (4) candidates should be taken through periodic spelling drills to improve their spelling;

- (5) candidates should be taught to be creative in their essay writing in order to get the required marks for that section;
- (6) teachers should teach thoroughly the grammar of the languages so as to improve on sentence construction of candidates;
- (7) a lot of assignments should be given, marked and discussed with students;
- (8) teachers should read the Chief Examiners' Reports to know the weaknesses in students and correct them;
- (9) students should be exposed to techniques of answering questions.



# **RÉSUMÉ OF MATHEMATICS**

## 1. STANDARD OF THE PAPER

The Chief Examiners for Mathematics (Core) 2 and Mathematics (Elective) 2 reported that the standard of the papers compared favourably with that of the previous years.

## 2. CANDIDATES' PERFORMANCE

The Chief Examiners for Mathematics (Core) 2 and Mathematics (Elective) 2 stated that there was an improvement in performance over that of last year.

## 3. SUMMARY OF CANDIDATES' STRENGTHS

The Chief Examiners for Mathematics (Core) 2 and Mathematics (Elective) 2 identified the following areas as strength of the candidates.

#### (1) MATHEMATICS (CORE) 2

Candidates were able to:

- (a) apply Pythagoras theory in solving problems;
- (b) simplify and factorize algebraic expressions;
- (c) draw trigonometric graphs and use it to solve relevant problems;
- (d) construct cumulative frequency tables and draw graphs of same distribution;
- (e) find the gradient of a line from a given equation.

## (2) MATHEMATICS (ELECTIVE) 2

Candidates exhibited an improvement in:

- (a) expressing a function as partial fractions;
- (b) finding the Spearman's rank correlation coefficient;
- (c) applying the Quotient rule to differentiate an algebraic fraction;
- (d) finding the magnitude of a resultant force with given magnitudes and directions;
- (e) finding identity element of a given binary operation and the inverse of the given elements;
- (f) using the general formula to find the equation of a circle which passes through three given points.

#### 4. SUMMARY OF CANDIDATES' WEAKNESSES

#### (1) MATHEMATICS (CORE) 2

Candidates were unable to:

- (a) show evidence of reading values from graphs;
- (b) translate word problems into mathematical equations;
- (c) solve problems on mensuration, geometry and cyclic quadrilaterals.

## (2) MATHEMATICS (ELECTIVE) 2

Candidates exhibited lack of understanding in:

- (a) applying probability concepts to solve problems;
- (b) finding angles and tensions of an inextensible string fixed at two points.

#### 5. SUGGESTED REMEDIES

## (1) MATHEMATICS (CORE) 2

The Chief Examiner made the following recommendations to remedy candidates' weaknesses:

- (a) In teaching, emphasis should be placed on showing evidence of reading from graphs;
- (b) Algebraic concepts should be explained meticulously to help candidates translate word-problems into mathematical equations (statements);
- (c) Teachers should encourage group work among candidates using geometrical figures to enable them solve questions on mensuration and geometry.

## (2) MATHEMATICS (ELECTIVE) 2

The following were recommended by the Chief Examiner to help candidates overcome their weaknesses:

- (a) The candidates should be exposed to many exercises on probability;
- (b) Teachers should give more attention to the concept of forces relating to tensions in an inextensible string.

# **RÉSUMÉ OF SCIENCE SUBJECTS**

## 1. STANDARD OF THE PAPER

All the Chief Examiners reported that the standard of the papers of the various subjects was appropriate and compared favourably with that of previous years.

## 2. PERFORMANCE OF CANDIDATES

The Chief Examiners expressed varied views on the performance of candidates for the science subjects.

Whereas performance in Fisheries, Biology and Animal Husbandry saw an improvement, there was a slight decline in the performance for General Agriculture, Physics, Chemistry, Integrated Science, Forestry and Crop Husbandry and Horticulture.

#### 3. SUMMARY OF CANDIDATES' STRENGTHS

The Chief Examiners noted that candidates performed well in the following topics of their respective subjects.

#### (1) **BIOLOGY**

- (a) Candidates exhibited good knowledge in performance of food test.
- (b) Candidates gave precise economic importance of cockroach and moss plant.
- (c) They showed clear understanding of deficiency disease and nutrient deficiency diseases in humans.

#### (2) GENERAL AGRICULTURE

- (a) Methods of fish preservation.
- (b) Establishment of lawns.
- (c) Irrigation.
- (d) Candidates stated correctly the method of applying inorganic fertilizers as well as their advantages.
- (e) They stated the functions of the gizzard correctly as well as nutrients obtained from milk for a lamb.

## (3) CROP HUSBANDRY AND HORTICULTURE

- (a) A good number of candidates exhibited adequate knowledge of the characteristic features of a fertile soil, importance of rainfall to the growth and yield of crops and effects of pests in crop production.
- (b) Some candidates satisfactorily discussed cultural methods of controlling pests in crop production.

#### (4) CHEMISTRY

The Chief Examiner reported that:

- (a) candidates showed good understanding of concordance in their choice of titre values for averaging;
- (b) candidates exhibited a good understanding of the mole concept;
- (c) candidates had a fair knowledge and understanding of IUPAC nomenclature, resonance and the periodic Chemistry.

## (5) PHYSICS

Candidates handled questions in the following areas quite well:

- (a) methods of demagnetizing a magnet;
- (b) use of the band theory to explain reduction in resistance of a semiconductor;
- (c) definition of atomic number;
- (d) presentation of data in a composite table;
- (e) the use of correct units for both measurable and deducted quantities.

## (6) <u>INTEGRATED SCIENCE</u>

Most candidates performed well in the following areas:

- (a) management practices in maize cultivation;
- (b) meaning of insanitary condition;
- (c) they were able to identify and name correctly parts of farm animals and laboratory instruments;
- (d) they were able to balance correctly chemical equations for the reaction involved in the preparation of hydrogen gas;
- (e) they were able to state correctly management practices of named animals.

## (7) ANIMAL HUSBANDRY

Most candidates performed well in the following areas:

- (a) ways in which diseases are of economic importance in livestock production;
- (b) materials used in milking cows;
- (c) aims of animal improvement programs;
- (d) importance of bone, milk and feathers to farm animals.

#### (8) FORESTRY

- (a) Steps involved in raising potted seedlings for out planting;
- (b) Forest industries in Ghana;
- (c) Factors to be considered when selecting a site for nursery;
- (d) Forest related areas in Ghana.

#### (9) FISHERIES

- (a) Most candidates could identify the specimens in the practical paper.
- (b) Candidates could differentiate between processing and preservation as used in the fishing industry.

Candidates for Biology, Chemistry, Physics, Animal Husbandry and Forestry were commended by the respective Chief Examiners for the orderly presentation of their responses.

Improvement in the spelling and usage of scientific terms was a noted feature in the responses of candidates for Integrated Science, General Agriculture and Fisheries.

#### 4. SUMMARY OF CANDIDATES' WEAKNESSES

The Chief Examiners noted that candidates did not perform too well in the following topics of the respective subjects:

#### (1) **BIOLOGY**

- (a) technical terms and scientific words were wrongly spelt;
- (b) many candidates failed to adhere to the guidelines regarding biological drawings;
- (c) candidates could not adequately explain food preservation in facilities such as silos and refrigerators.

## (2) GENERAL AGRICULTURE

Most candidates had challenges in the following areas:

- (a) spelling technical terms and scientific names;
- (b) varieties and family name of egg plant;
- (c) naming pest and disease that affect egg plants;
- (d) characteristics of the gizzard.

## (3) CROP HUSBANDRY AND HORTICULTURE

- (a) several candidates could not spell technical terms and scientific words correctly;
- (b) candidates could not adequately explain the following terms: hybridization, relay cropping, succession cropping and organic farming.

#### (4) CHEMISTRY

Most candidates were unable to:

- (a) define atomic radius:
- (b) identify specific tests for various organic compounds;
- (c) differentiate between ions and atoms.

## (5) PHYSICS

Most Candidates:

- (a) had difficulty solving problems on mechanics, sound and heat;
- (b) could not give the reason for using steel as a compass needle and iron as a core of electromagnets;
- (c) failed to record length measured with the metre rule to 1 decimal place in centimetres:
- (d) were unable to make simple deductions from the graphs;
- (e) were unable to plot points correctly to the accuracy of chosen scales.

## (6) INTEGRATED SCIENCE

Most candidates showed weaknesses in the following areas:

- (a) spelling common words correctly;
- (b) basic electronics, writing of chemical formulae of compounds and Rhesus factor;
- (c) plotting graphs with correct values;
- (d) poor description of the process that goes on in the stomach of humans.

## (7) ANIMAL HUSBANDRY

Majority of the candidates were unable to:

- (a) spell essential key words;
- (b) state the steps involved in the preparation of bone meal;
- (c) indicate ways of restraining farm animals;
- (d) state effects of temperature on some parameters in livestock production;
- (e) explain the differences between hand mating, pen mating and pasture mating.

## (8) **FORESTRY**

Commonly identified difficulties included:

- (a) wrong spelling of technical words;
- (b) poor drawing skills;
- (c) inability to state why black poly bags are used for nursing seedlings.

#### (9) FISHERIES

Candidates expressed difficulties in:

- (a) the spelling of technical terms;
- (b) the explanation of how salting, drying and freezing preserves fish;
- (c) stating reasons for seasonal variations in fish catch;
- (d) stating the effect of fish spoilage on clients.

## 5. SUGGESTED REMEDIES

The Chief Examiners for the Science subjects generally recommended that candidates should be taken through many practical lessons to improve their performance. Moreover, candidates should be adequately prepared for the examination and given the needed help to improve upon the usage of the English Language.

The Chief Examiners also made the following suggestions:

- (1) candidates should read questions carefully and adhere to instructions;
- (2) candidates should be helped to identify and understand the scientific principles underlying everyday occurrence;
- (3) teachers should allot more time for practical lessons;
- (4) teachers should demonstrate the procedure used in practical activities;
- (5) teachers should give more exercises in organic chemistry especially drawing of structures;
- (6) teachers should help students to master biological drawings;
- (7) teachers should do their best to explain the theories and principles in Physics and their applications to students.

# **RÉSUMÉ OF TECHNICAL SUBJECTS**

## 1. STANDARD OF THE PAPERS

All the Chief Examniers of the Technical subjects were of the view that the standard of the papers was comparable to that of previous years.

## 2. PERFORMANCE OF CANDIDATES

The performance of candidates varied for the different papers under the Technical program. Candidates' performance in ICT 2, Electronics 2 and Technical Drawing 3 declined as compared to that of last year.

Performance in Building Construction 2 and 3, Metalwork 3 and Auto Mechanics 3 compared favourably with that of the previous year. According to the Chief Examiners of Woodwork 2 and Woodwork 3, Applied Electricity 2 and 3, candidates' performance was better than last year.

## 3. <u>SUMMARY OF CANDIDATES' STRENGTHS</u>

#### (1) ORDERLY PRESENTATION OF ANSWERS

Some candidates, according to the Chief Examiners, had their work well numbered and evenly spaced out for easy reading. This was reported in Building Construction 2 and Auto Mechanics 2.

## (2) IN-DEPTH KNOWLEDGE OF SUBJECT MATTER

Some candidates showed very good instrument reading in their experiments in Electronics 3 and Applied Electricity 3. In Technical Drawing 3, most candidates demonstrated good knowledge and skills in First Angle Orthographic Projection and sectioning. Interpretation of the working drawing for the artefact to be produced was well done by many candidates as reported in Metalwork 3 and Woodwork 3. In Electronics 2, candidates demonstrated their knowledge in electromagnetism by stating some devices that use the principle of electromagnetism in their operation. Most candidates of ICT 2 and 3 demonstrated good knowledge in number system computing and HTML respectively.

#### (3) PRODUCTION OF GOOD SKETCHES

Candidates in Building Construction 3 produced proportional and accurate sketches to answer questions that demanded sketches. In Technical Drawing 2, most candidates used neat and perfect lines to produce their drawings.

## 4. **SUMMARY OF CANDIDATES' WEAKNESSES**

## (1) <u>INADEQUATE PREPARATION</u>

In Metalwork 3, most candidates did not attempt the machining test due to their lack of knowledge and skills in lathe machining. In Applied Electricity 2 candidates showed lack of knowledge in electrical installation works. In Electronics 2 and ICT 2, candidates had difficulty in answering the questions.

### (2) LACK OF IN-DEPTH KNOWLEDGE OF SUBJECT MATTER

A significant number of candidates failed to state the given scale, show the cutting plane on the front elevation, indicate the dimensions and name the views drawn in Woodwork 2. In Woodwork 3, most candidates were unable to work to the required dimensions. Most candidates in Technical Drawing 3 showed lack of skills in freehand sketches. In Elective ICT 3, candidates could not provide a formula to solve the database question.

#### (3) NON-ADHERENCE TO RUBRICS OF EXAMINATION

A few candidates in Building Construction 3 either did not read or refused to observe the instruction on the number of questions to answer and as such answered more questions than was required. In Electronics 3, a few candidates provided irrelevant information such as copying circuit and pictorial diagrams which were not demanded by the question. In Technical Drawing 2, a few candidates partly answered all the five questions instead of answering only three. Candidates in Auto Mechanics 2 did not start questions on fresh pages but rather mixed their responses up.

#### (4) POOR EXPRESSIONS

Expressing ideas in English Language was poor in Building Construction 2 and 3 and Auto Mechanics 2 which made comprehension of what some candidates had written difficult. In Elective ICT 2, a few candidates had very bad handwriting which made reading very difficult.

## 5. SUGGESTED REMEDIES FOR THE WEAKNESSES

The following were suggested as remedies for the weaknesses:

- (1) Practical work should be intensified by instructors;
- (2) Candidates should be impressed upon to read and follow the rubrics of the paper;
- (3) Teachers should have all the necessary tools and equipment and instruments including appropriate textbooks for the training of students;
- (4) Candidates should read over their answers to enable them correct errors such as omissions and poor spellings;
- (5) Candidates should be encouraged/taught to answer questions systematically.

# **RÉSUMÉ OF VOCATIONAL SUBJECTS**

## 1. STANDARD OF THE PAPERS

All the Chief Examiners reported that the standard of this years' papers compared favourably with that of the previous years.

They reported that the questions were based on the topics within the syllabus and that they were clear and straightforward.

## 2. <u>PERFORMANCE OF CANDIDATES</u>

The Chief Examiners reported that candidate's performance was a slight improvement over that of the previous year for majority of the subjects.

They also reported that for General Knowledge in-Art 2B, Management in Living 2 and 3, Clothing and Textiles 2 and 3, Jewellery 2, Picture Making 2, Foods and Nutrition 2B, candidates' performance was comparable to that of the previous year.

## 3. SUMMARY OF CANDIDATES' STRENGTHS

The Chief Examiners highlighted the following strengths in candidates work:

- (1) Most candidates adhered to the rubrics of the papers. This was reported in Ceramics 2, Clothing and Textiles 2, Management in Living 3, Visual Art 3, Graphic Design 3, Picture Making 2 and General Knowledge in Art 2.
- (2) Improvement in the quality of machine stitching and good modelling of well-fitting self-garments were reported in Clothing and Textiles 3.
- (3) Most candidates demonstrated appreciable knowledge in the subject matter. This was reported in Ceramics 2, Clothing and Textiles 2 and 3, Sculpture 2 and Management in Living 2 and 3.
- (4) Most candidates used good images, texts, figures illustrations, functionality finishing and decoration especially in Picture Making 3, Textiles 3, Graphic Design 3 and Leatherwork 3.
- (5) Improvement in the use of English Grammar was evident in Foods and Nutrition 2B, Textiles 2, Management in Living 2 and 3.

#### 4. SUMMARY OF CANDIDATES' WEAKNESSES

The Chief Examiners found the following weaknesses in the performance of candidates:

(1) Majority of the candidates lacked lettering and spacing skills in Graphic Design 3, Jewellery 3 and Textiles 3.

- (2) Some candidates failed to apply the principles needed in designing and composing a given space as regards picture area, borders, background and foreground. This was reported in Picture Making 3, Graphic Design 3 and Sculpture 3.
- (3) Most candidates failed to explain or describe as the question demanded but rather listed or stated the answers. This was reported in Sculpture 2, Ceramics 2 and Management in Living 3.
- (4) English Language continues to be a problem. Most candidates could not express themselves well even where there was evidence that they were familiar with the topic. This was reported by Chief Examiners of Clothing and Textiles 2, Management-in-living 2 and Ceramics 3.
- (5) Poor spelling of basic terminologies and words was a weakness in Clothing and Textiles 2B, Jewellery 2, Management in Living 3, Ceramics 2, Foods and Nutrition 2B, Picture Making 2 and Basketry.
- (6) Some candidates used shorthand and abbreviations in answering questions in Foods and Nutrition 2B and Basketry 2.
- (7) Poor handwriting was reported to be a weakness in Ceramics 2 and General Knowledge in Art 2.

## 5. SUGGESTED REMEDIES

- (1) The schools must procure the vital tools and equipment, materials and accessories in good time for the teachers to engage candidates in practical work.
- (2) Candidates should be encouraged to read prescribed textbooks in addition to notes given by their tutors.
- (3) Spelling drills should be carried out at the beginning or at the end of lessons to help improve candidates' spellings. In addition, candidates should be encouraged to read widely to improve their English Language.
- (4) Teachers should teach candidates how to handle tools and materials well and should undertake more practical lessons with the candidates.
- (5) Teachers should use correct terminologies in their instructions and students should be encouraged to use these terminologies correctly. Qualified teachers who are knowledgeable should be engaged to handle subjects that they specialized in.
- (6) Teachers should give a lot of assignments to improve answering of questions. This will help candidates to know how to answer questions and how to correct their mistakes.
- (7) Students should be advised to read the rubrics of the papers and they should adhere to them.
- (8) Teachers should consult the Chief Examiners reports for guidance in their teaching.