

**THE NATIONAL BUSINESS AND TECHNICAL
EXAMINATIONS BOARD (NABTEB)**

P.M.B. 1747, IKPOBA HILL, BENIN CITY EDO STATE

**THE CHIEF
EXAMINERS' REPORT**

ON THE

2017 MAY/JUNE NBC/NTC
EXAMINATIONS

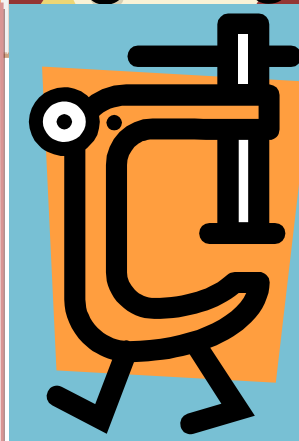


TABLE OF CONTENT

	Page
Table of Content:	ii – iii
Mission Statement:	iv
Preface:	v
Executive Summary:	vi – ix

SECTION I: GENERAL EDUCATION TRADES

English Language (001-2):	2 – 4
Mathematics (002-2):	5 – 10
Economics (003):	11 – 14
Physics (004-1):	15 – 18
Chemistry (005-1):	19 – 22
Biology (006-1):	23 – 25
Literature in English (007-1):	26 – 28
Literature in English (007-2):	29 – 32
Information and Communication Technology (008-1):	33 – 35
Civic Education (009):	36 – 37
Agricultural Science (195-1):	38 – 42
Geography (196):	43 – 46
Christian Religious Studies (197):	47 – 48
Islamic Studies (198):	49 – 51

SECTION II: BUSINESS TRADES

Typewriting 35 wpm (411):	53 – 59
Office Practice (413):	60 – 63
Commerce (421):	64 – 66
Financial Accounting (423):	67 – 71
Salesmanship (431):	72 – 75
Tourism (441):	76 – 77

SECTION III: TECHNICAL TRADES

Introduction to Agricultural Science Implements and Machine (011-1):	79 – 81
Tractor System (012-1):	82 – 84
Motor Vehicle Mechanics Works (021-1):	85 – 87
Automobile electrical Works (031):	88 – 90
Electrical Installation and Maintenance Works (041-1):	91 – 97
Fabrication and Welding (051-1):	98 – 100
Vehicle Body Building (091-1):	101 – 103
Mechanics Work (111-1):	104 – 106

	Page
Marine Engineering Craft (151-1):	107 – 109
Computer Craft Studies (171-1):	110 – 112
Animal Husbandry (181-1):	113 – 115
General Metal Works (191-1):	116 – 118
General Woodwork (192-1):	119 – 120
Building/Engineering Drawing (193-2):	121 – 126
Basic Electricity (194-1):	127 – 129
Introduction to Building Construction (211-1):	130 – 132
Blocklaying, Bricklaying and Concreting (212-1):	133 – 135
Carpentry and Joinery (221-1):	136 – 138
Furniture Making (231-1):	139 – 140
Machine Wood Working (241-1):	141 – 142
Painting and Decorating (251-1):	143 – 145
Plumbing and Pipe Fitting (261-1):	146 – 147
Draughtsmanship Craft Practice (271):	148 – 149
Ladies Garment Making (331-1):	150 – 152
Catering Craft Practice (341-1):	153 – 155
Printing Craft Practice (361-1):	156 – 157
Graphic Design (381-1):	158 – 160
Ceramic and Design (391-1):	161 – 162

THE NABTEB MISSION AND VISION STATEMENTS

MISSION STATEMENT

**BECOME A GLOBALLY ACKNOWLEDGED ASSESSMENT BODY
FOR CRAFTSMEN AND TECHNICIANS**

VISION

**BE A GLOBALLY RECOGNIZED ASSESSMENT AND
CERTIFICATION BODY PREPARING CANDIDATES FOR THE
WORLD OF WORKS AND ACADEMIC/PROFESSIONAL
EXCELLENCE**

P R E F A C E

The Chief Examiners' Report is the post examination analysis on the marking exercise, which is an integral part of the certification process of NABTEB examinations. It also provides a feedback on the performance of the candidates and their teachers. Two volumes are produced each year, one for May/June NBC/NTC and the other for November/December NBC/NTC and ANBC/ANTC Examinations.

This report for 2017 May/June is divided into three sections, namely:

Section I: General Education Trades;

Section II: Business Trades and

Section III: Technical Trades.

Each section discusses in details the general performance of the candidates, their strengths and weaknesses as well as suggestions for improvement.

This document is therefore recommended for use by schools and students taking NABTEB examinations as it provides feedback to guide the schools and help correct the lapses identified by the examiners during the marking exercise. It will also be of immense value to individuals wishing to sit for NABTEB examinations.

EXECUTIVE SUMMARY

GENERAL EDUCATION TRADES

Candidates' performance was generally good in English Language (001-2), Mathematics (002-2), Economics (003), Physics (004-1), Chemistry (005-1), Biology (006-1), Literature-in-English (007-1), Literature in English (007-2), Information and Communication Technology (008), Civic Education (009) Agricultural Science (195-1), Geography (196) Christian Religious Studies (172) and Islamic Studies (198).

Candidates' Strengths

- ✓ Candidates displayed good grammatical expression, and
- ✓ Candidates answered questions on comprehension summary correctly.
- ✓ Candidates showed good computation skill.
- ✓ Good presentation of answers.
- ✓ They showed ample understanding of some of the question.
- ✓ They had good knowledge of respiration and cell.
- ✓ They could recall definitions.
- ✓ They answered questions on what led to the death of baby T in Darko's faceless.
- ✓ They answered question on erosions correctly.
- ✓ Candidates gave correct definition of opportunity cost and scarcity.

Candidates' Weaknesses

- ✕ Poor sketching/drawing skill.
- ✕ Improper coverage of syllabus.
- ✕ Poor Mathematical Knowledge.
- ✕ Poor spellings.
- ✕ Inability to define properly.
- ✕ Poor handwriting.
- ✕ Poor Communication.
- ✕ Many candidates were not able to state how to access email.
- ✕ Poor reading culture.
- ✕ Poor knowledge of construction.

Suggestions for Improvement

- ❖ Candidates should spend the first few minutes in going through the questions before attempting them.
- ❖ Candidates should be encouraged to consult dictionary.
- ❖ Emphasis should be laid on different types of essay.
- ❖ Teachers/candidates should endeavour to cover the syllabus.
- ❖ Teaching aids should be made available to schools to enhance the teaching and learning.
- ❖ Candidates should be exposed to mathematics and use of English Language to aid their computation skills and grammatical expressions respectively.

- ❖ Teachers should encourage students to develop reading habit.
- ❖ Modern workshop should be organized for teacher to improve their skills.
- ❖ Emphasis should be laid on good handwriting.
- ❖ Emphasis should be laid on drawing skill.
- ❖ Constant inspection should be conducted to check the quality of teachers in schools.

BUSINESS TRADES

Candidates' performance was generally good in Commerce (421), Salesmanship (431) and Tourism (441), while their performance was average in Office Practice (413), Financial accounting (423) and fair in Typewriting (411).

Candidates' Strengths

- ✓ Candidates did well in the typing of memorandum
- ✓ Candidates completed their task on typewriting 35 wpm (411) timely.
- ✓ Candidates distinguished crossed cheque from open cheque clearly.
- ✓ Candidates responded well to the principles of double – entry account system.
- ✓ Good presentation of answers.
- ✓ They displayed proficiency in hotel management.
- ✓ They answered question on industrial development in Nigeria correctly.

Candidates' Weaknesses

- ✓ Lack of speed
- ✓ Candidate inability to use abbreviation.
- ✓ Many candidates engaged in overtyping.
- ✓ Poor spelling.
- ✓ Poor drawing skill.
- ✓ Poor grammatical expression.
- ✓ Poor handwriting.
- ✓ Poor Computation.
- ✓ Poor headings of account topics.
- ✓ Poor understandings of questions.
- ✓ Failure to follow rubrics instruction.

Suggestions for Improvement

- ❖ Refresher courses, seminars, workshops should be regularly organized for teachers.
- ❖ Emphasis should be laid on English Language.
- ❖ Typewriters should be serviced and bad ones replaced before the commencement of examination.
- ❖ Refresher courses should be organized for teachers to update their knowledge.
- ❖ Instructional materials should be used by teachers at all levels to teach the students.
- ❖ Current and standard books should be made available to students and teachers in the library.
- ❖ Candidates should cultivate the habit of reading novels, journals, magazines etc.

TECHNICAL TRADES

Candidates' performance was generally good in Introduction to Agricultural Science implements and Machines (011-1), Tractor System (012-1), Motor Vehicle Mechanics (021), Automobile Electrical Works (031), Mechanic Works (111), Building Engineering Drawing (193-2), Catering Craft Practice (341-1) and Printing Craft Practice (361).

Candidates performance was fair in Electrical Installation Maintenance Works (041), Fabrication and Welding (051), Foundry Craft Practice (131), Computer Craft Practice (171), General Metal Works (191), General Wood Work (192), Basic Electricity (194-1), Carpentry and Joinery (221-1), Furniture Making (231), Machine Wood Working (241), Painting and Decorating (261), Ladies Garment Making (331) Graphic Design (381), Ceramic and Design (391).

Candidates' performance was average in in Vehicle Body Building (091-1), Marine Engineering Craft (151-1) and Blocklaying Bricklaying and Concreting (212-1).

Candidates performed poorly in Introduction to Building Construction (211-1) and Draughtsmanship (271)

Candidates' Strengths

- ✓ They answer questions on Engine crankshaft correctly.
- ✓ Exceptional performance in the science aspect of refrigeration and air-conditioning.
- ✓ Many candidates displayed good knowledge of Boyles Law and the operation of vapour depression system..
- ✓ They had good knowledge of the concept of mechanics works.
- ✓ The candidates showed good knowledge of units to be disconnected from Engine before over hauling.
- ✓ Candidates showed good pencil work.
- ✓ Candidates defined glaze correctly.

Candidates' Weaknesses

- ✕ Poor presentation of answers.
- ✕ Poor interpretation of questions.
- ✕ Poor drawing skill.
- ✕ Poor grammatical expression.
- ✕ Inability to answer question on cylinder ignition circuit.
- ✕ Poor handwriting.
- ✕ Misinterpretation of terms.
- ✕ Candidates showed poor knowledge of printing craft practice (361-1).

Suggestions for Improvement

- ❖ Students should be encouraged to use the library at all times.
- ❖ Emphasis should be laid more on practicals in workshops and laboratory.
- ❖ Instructors should be train and retrain with modern teaching methods
- ❖ Emphasis should be laid on the teaching of English Language.
- ❖ Emphasis should be laid on drawing skills.
- ❖ Adequate practical and instructional materials should be provided by the government.
- ❖ Emphasis should be laid on building and Engineering Drawing.
- ❖ Emphasis should be laid on spelling and labeling by teachers.
- ❖ Candidates should be made to cultivate the habit of reading.
- ❖ Students should read and understand instructions before attempting the question

SECTION ONE

GENERAL EDUCATION

ENGLISH LANGUAGE (001-2)

General Comments

The questions covered the syllabus and the candidates' performance was generally good.

Detailed comments on each question

Section A Essay Writing

Question 1

Write a letter to your uncle abroad asking for financial assistance to enable you set up a business related to your course of study on the completion of your training. Describe the steps you intend to take to ensure the success of the business.

Intended Task

Candidates were expected to write a letter to their uncle abroad asking for financial assistance to enable them set up a business related to their course of study on the completion of their training. They were also required to describe the steps they intend to take to ensure the success of the business. Candidates performed fairly.

Question 2

You have just been elected the president of the student's union in your school. Write a speech indicating at least three areas you wish to effect changes.

Intended Task

As a newly elected president of the students union candidates were expected to write a speech indicating at least three areas they wish to effect changes. The important points many candidates omitted are the discussion on how the change would be effected and why he wants to make the change. Candidates performed fairly.

Question 3

Write an article for publication in a national newspaper on the topic:
"The Qualities of a Responsible Citizen"

Intended Task

Candidates were expected to write an article for publication in a national newspaper on the topic: 'the qualities of a responsible citizen'. Many of the candidates scored good marks for contents as they were able to discuss many qualities of a responsible citizen. Candidates performed well.

Question 4

Your team organized a practical session recently in your course area. Write a comprehensive report.

Intended Task

The question tested candidates' ability in comprehensive report writing. On a practical session recently organized by their team in their course area. Most candidates avoided the question. Candidates performed poorly.

Section B: comprehension

Question 5

Intended Task

The candidates were expected to understand the reading passages and answer the questions that follow. Candidates' answers to the comprehension questions were as brief as they should be, though some candidates supplied more than one option in the replacement of words. Candidates performed well.

Section C – Summary

Question 6

Intended Task

Candidates were expected to read the passage and answer the questions that followed. Many candidates lost a lot of marks for making use of a general preamble for all the six answers required. Candidates performed fairly.

Candidates' Strengths

- ✓ Many candidates demonstrated high competence in the handling of the essay questions
- ✓ Many candidates performed reasonably well in those questions whose answers are identifiable in the passage.
- ✓ Many candidates score high marks because they wrote brief answers and straight to point.
- ✓ Candidates presented their answer clearly and organized their points.

Candidates' Weaknesses

- ✗ Poor usage of English Language
- ✗ Poor grammatical expression
- ✗ Poor spelling and punctuation marks
- ✗ Poor mechanical accuracy.

Suggestions for Improvement

- ❖ Candidates should spend the first few minutes in going through the questions before attempting them.
- ❖ Teachers should ensure that candidates are adequately groomed before they sit for examination.
- ❖ Candidates should learn the skill of paragraphing.
- ❖ Candidates should read novels, good magazines and journals as well as dictionaries to improve their vocabulary.
- ❖ Supervisors and invigilators should ensure that candidates are reminded to always read the rubrics in each paper before attempting the questions.

MATHEMATICS (002-2)

General Comment on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comment on Each Question

Question 1

- (a) Simplify $\frac{1^{4/5} \times 2^{1/3}}{3^{3/4} - 4^{1/5}} \times \frac{2}{3}$
- (b) Solve by factorization $x^2 + 5x - 6 = 0$

Intended task

The question tested candidate's knowledge of simplification and factorization. They were also expected to apply their knowledge of BODMAS and quadratic equation. Candidates performed well.

Question 2

- (a) If $U = \{x: x \text{ is a prime integer, } 2 \leq x < 10\}$
 $A = \{x: x \text{ is a prime number}\}$
 $B = \{x: x \text{ is a multiple of } 3\}$
- (i) Find $A \cup B$
- (ii) List the elements of the set $A^c \cap B^c$
- (b) If $161_n = 32_5$, Find n

Intended task

The question required the candidates' knowledge of set and binary number 161_n was done well and they got the answer. Candidates performed well.

Question 3

- (a) If $^{1/2}\log_y 81 = 2$, find y
- (b) Simply $\frac{0.016 \times 0.048}{0.64}$ leaving your answer in standard form.

Intended task

The question required the candidate's ability to recall their knowledge of logarithm and some candidates used tables and had their answers in standard form. Candidates performed well.

Question 4

Find the capacity in litres of a bucket 24cm in diameter at the top, 16cm at the bottom and 20cm deep.

Intended task

The candidates were expected to find the volume of fusion of a cone. Candidates performed well.

Question 5

(a) Express as a simple fraction in its simplest form: $\frac{2}{3(x-2)} - \frac{x-1}{x-2}$

(b) $\frac{X^2 + 3x + 2}{X^2 - 4}$

Intended task

The candidates were expected to recall their knowledge of simple fraction and simplification. This includes their knowledge of algebraic fractions and fractionation of difference of two squares. Candidates performed well.

Question 6

- (a) construct
 - (i) $\triangle XYZ$ such that $|XY| = 6\text{cm}$, $|XZ| = 9\text{cm}$ and $\angle YXZ = 120^\circ$
 - (ii) Locus L_1 of points equidistant from X and Z
 - (iii) The Locus L_2 of points equidistant from $|XY|$ and $|XZ|$, which passes $\triangle XYZ$
- (b) Label the point R where L_1 and L_2 intersect.
- (c) Measure $|RX|$ and $|RY|$

Intended task

The question required the candidate's knowledge of construction. Few of the candidates were able to construct angle 120° and locus L_1 and L_2 correctly. Candidates performed well.

Question 7

(a) Use logarithms to calculate $\frac{\sqrt{3.412 \times 0.04134}}{2.764^2}$

(b) Find the sum of the first 50 even number of an AP

Intended task

The question tested candidate knowledge of logarithm and arithmetic progression. Some of the candidates were able to use logarithm tables to find the square, roots multiply and divide numbers. Candidates performed well.

Question 8

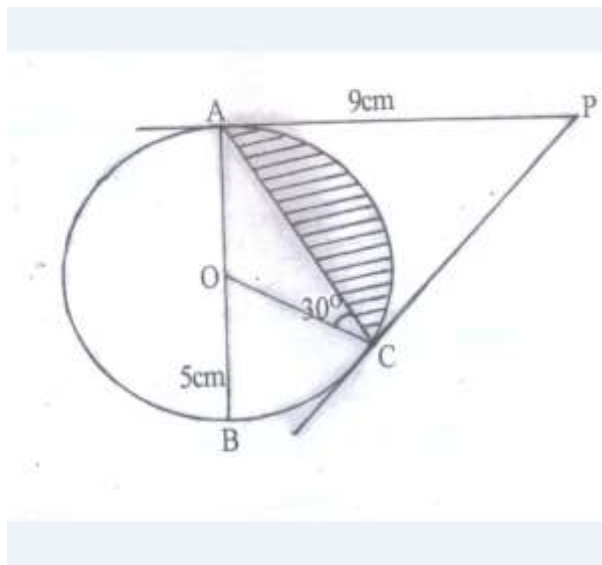
- (a) Find the values of x for which $(x-6)$, $2x$ and $(8x+20)$ are consecutive terms of a GP.
(b) Simplify $\frac{\sqrt{72x} \cdot 3\sqrt{18x} \cdot 14\sqrt{6}}{2\sqrt{24x}\sqrt{12}}$

Intended task

Candidates were expected to recall their knowledge of geometric progression and surd. They were able to form the equation using the common ratio. Candidates performed well.

Question 9

- (a) AB is a diameter of the circle centre O , AP and PC are tangents to the circle at A and C . $PA = 9\text{cm}$
 $OB = 5\text{cm}$ and $\angle ACO = 30^\circ$



- (i) find the length of the chord AC
(ii) Find the area of the shaded segment.
- (b) An aeroplane leaves an airport, flies due North for 2 hours at 500km/hr . it then flies 450km on a bearing 060° . How far is the plane from the airport and what is its bearing from it ?

Intended task

The candidate were expected to find the value of $\angle AOC$ and the area of the shaded segment and to recall their knowledge of bearing. They were able to calculate the value of $\angle AOC = 120^\circ$ the length of the chord AC, areas of sector of PAOB, which they also understand as an isosceles. Candidates performed well.

Question 10

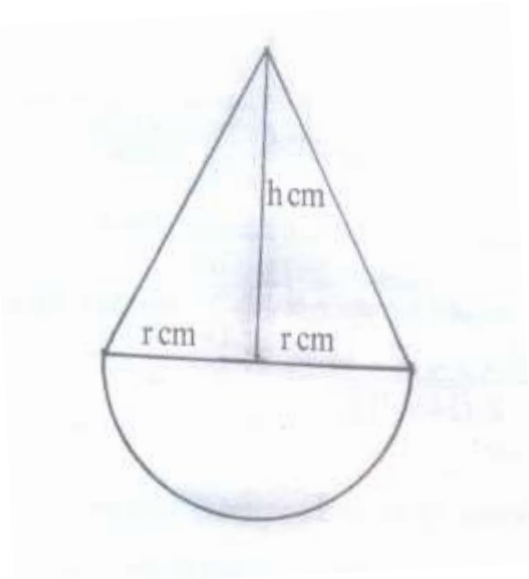
- (a) A pack contains nine identical marbles, out of which three are blue, two are white and the remaining are red. If two marbles are drawn at random one after the other without replacement. find the probability that:
- both of them will be red;
 - The two are of the same colour.
- (b) The angle $(2\theta - 30^\circ)$ and $(3\theta - 45^\circ)$ are supplementary, find θ .

Intended task

The question tested candidate's knowledge of probability and supplementary angle. They were able to calculate the supplementary angle (2 angles $= 180^\circ$). Candidates performed well.

Question 11

The diagram below represents the cross section of a solid in the form of a cone of height h , and a hemispherical bowl of radius r . the volume of the hemispherical portion is half of the conical portion. Calculate the



- Vertical angle of the cone ,correct to the nearest degree
- Total volume, correct to three significant figure of the solid , given that $r=4\text{cm}$ (take $\pi=\frac{22}{7}$)

Intended task

The question required candidate's knowledge of cone. They were to calculate the volume of the cone. Candidates were able to calculate the height 'h' through equation from volume of hemisphere and cone. Candidates performed well.

Question 12

- a. C & C plc quoted their N0.50 shares at N2.10 and pays a dividend of 25% after the AGM. If a man invested N818, 200 .00 what will be his dividend.
- b. A man bought polythene making machine for N15, 000,000.00 it depreciates at $2\frac{1}{2}\%$ for the first four years and 10% thereafter. What will be the machine value at the end of six years?

Intended Task

The candidates' were tested on their knowledge of nominal values and depreciation. They were to calculate the value year by year while few used the compound formula twice to get the correct answer. Candidates' performed very well.

Question 13

- (a) A driver bought a new bus with a deposit of N1, 000, 000.00 he is to make a monthly payment of N30, 000 .00 for two years. For defaulting, he is sub charged N50, 000 .00. If he defaulted five times throughout the two years, how much did he pay for the bus?
- (b) A bank went into bankruptcy, but NDIC was able to repay 28\$ on deposits for current and 32\$ on savings accounts respectively. If a man has N1,400, 000.00 in his current account and N65,000.00 in his savings account, What will be his total take home?

Intended Task

The question required the candidates' knowledge of hire purchase. Few candidates multiplied two years by the monthly payment instead of 24 months by N30,000 .00 to get N720,000.00 as the total monthly payment. Candidates performed fairly.

Question 14

- a. Calculate the three months moving average in the date 61, 72, 66, 85, 83 and 90.
- b. A profit of 3% was realised on an article sold for N3,090.00. What was the cost price?

Intended Task

The candidates were expected to calculate the cost price of an article and 3 months moving average in the date given. Candidates' performed fairly well.

Question 15

Edokpolor's budget for November 2013

IncomeExpenditure

N		N
200,000.00	Rent	20,000.00
	Food	30,000.00
	Transport	15,000.00
	Household basic things	5,000.00
	Miscellaneous	
	(Including entertainment)	25,000.00
	School fees for wards	50,000.00

- What percentage of his income goes to rent and food together?
- How much does Edokpolor plan to save?
- If he wishes to save ₦85,000.00 in December, how much should he plan to spend on the miscellaneous item, assuming that his income and expenditure on other items remain unchanged?

Intended Task

The candidates' were expected to calculate the percentage of rent and food. Candidates' performed poorly

Candidates' Strengths

- ✓ They had good knowledge of simultaneous equation.
- ✓ Good presentation of answers.
- ✓ Good knowledge of simplification and quadratic equation.

Candidates' Weaknesses

- ✗ Poor sketching/drawing skill.
- ✗ Poor knowledge of construction.

Suggestions for Improvement

- ❖ Assignments involving drawing and sketches should be given to candidates.
- ❖ Teachers should intensify the teaching of construction topics.

ECONOMICS (003)

General comments on the paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed comments on each question:

Question 1

The following table gives the distribution of a sample of 2,000 people according to economic activities in Barnawa City.

Type of Activity	Number of Persons
Employed	800
Full Housewives	600
Students	300
Unemployed	200
Others	100

- Calculate in percentages the proportion each activity represents
- Calculate the sector in a pie-chart each activity represents
- Draw and label the pie-chart

Intended Task

The candidates were expected to calculate in percentages the proportion of each activity, the sector in a pie-chart, draw and label the pie-chart using the table above with sample distribution of 2,000 people. Many candidates calculated correctly the percentages and degree from the raw scores given but many equally failed woefully in drawing correct pie chart. Candidates performed averagely.

Question 2

Given the following national income:

$$Y = C + I + G$$

$$C = a_0 + b_y$$

$$a_0 = 135, b = 0.8, I = 75, G = 30 \quad M = \frac{1}{1-b}$$

1-b

- Calculate the values of Y and C
- Calculate the values of M
- If M=multiplier, interpret your result in (2b) above

Intended Task

The candidates were required to calculate values of Y and C, value of M and if M =multiplier , interpret the result in (2b). Many candidates did not calculate the value of Y as requested in (Q2b). Candidates performed fairly.

Question 3

- a. With suitable examples, explain the types of production
- b. State the law of variable proportions

Intended Task

The candidates were expected to explain the types of production with suitable examples and state the law of variable proportions. Many candidates limit their answer on direct and indirect production. They did not give primary, secondary and tertiary as requested in Q (3a). The candidates performed averagely.

Question 4

- a. What is population census?
- b. Explain four problems of population census in Nigeria.

Intended Task

The question explored candidates' knowledge of population census and to explain four problems of population census in Nigeria. Many candidates did not relate their answers to Nigeria situation as needed in Q (4b). Candidates performed fairly.

Question 5

- (a) Define the following:
 - i. Cross elasticity of demand
 - ii. Income elasticity of demand
- (b) Explain four factors that affect the elasticity of demand for bread.

Intended Task

The question tested the candidates' knowledge of cross elasticity and income elasticity of demand. They were equally expected to explain four factors that affect the elasticity of demand for bread. Candidates performed averagely.

Question 6

- a. Explain the following:
 - i. Demand for money
 - ii. Supply for money
- b. Why do people hold money in liquid form?

Intended Task

The candidates were required to explain demand for money, supply of money and state why people hold money in liquid form. Many candidates did not mention the determinants.

The candidates performed fairly.

Question 7

- a. Distinguish between fiscal and monetary policies.
- b. Describe three monetary policy instruments that can be used to fight inflation.

Intended Task

The candidates were expected to distinguish between fiscal and monetary policies. They were to describe three monetary policy instruments that can be used to fight inflation. Candidates performed well.

Question 8

Explain the following concepts:

- i. Location of industry
- ii. Localization of industry
- iii. Import-substitution strategy
- iv. Export promotion strategy

Intended Task

The question tested the candidates' knowledge of location of industry, localization of industry, import-substitution strategy and export promotion strategy. Candidates performed well.

Candidates' Strengths

- ✓ Many candidates calculated correctly the percentage and degrees from the raw scores given.
- ✓ Candidates did well in defining cross elasticity and income elasticity of demand.
- ✓ Ability to understand questions and answer correctly.

Candidates' Weaknesses

- ✕ Poor graphical representation.
- ✕ Failure to show contrast or conjunction words in answering questions that required distinguishing.
- ✕ Poor arrangements of facts and concepts.

Suggestions for Improvement

- ❖ Teachers should endeavour to teach graphical illustrations in economics
- ❖ Candidates must be current on the economic situation of the country by reading newspapers in addition to their textbooks.
- ❖ Applied questions must be related to whatever the question specified. If it is a country or product, it must be answered along that line.
- ❖ Candidates should be careful, when the words distinguish is used. They should use any of these words- while, but, whereas or use a table.
- ❖ Teachers should attend seminars/ workshops in economics where some modern concepts are treated.
- ❖ The syllabus should be covered by the teachers/ students before the commencement of examinations.

PHYSICS ESSAY (004-1)

General Comments on the Paper

The paper covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- a. Derive the dimension of the following physical quantities:
 - i. Force
 - ii. Momentum
 - iii. Density
- b.
 - i. Explain the term relative density of a substance.
 - ii. With the aid of a well labeled diagram, illustrate how you would measure the density of a piece of hard stone extracted from a rock.
- c. A force of 60N is applied at the free end wire fixed at the other end to give an extension of 0.3mm. If the original length and diameter of the wire are 2m and 1.5mm respectively, determine the:
 - i. Stress on the wire
 - ii. Strain on the wire
 - iii. Young modulus for the wire

Intended Task

Candidates were expected to derive the dimension of the following physical quantities Force, Momentum, Density, explain relative density of a substance and with the aid of a well labeled diagram illustrate how you would measure the density of a Piece of hard stone extracted from a rock. Also candidates were to determine Stress on the wire, Strain on the wire and young modulus for the wire, when a force of 60N is applied at the free end wire fixed at the other end to give an extension of 0.3mm, if the original length and diameter of the wire are 2m and 1.5mm respectively. Many candidates were unable to differentiate dimension of physical quantities from their S.I units. Candidates performed poorly.

Question 2

- a.
 - i. State four effects of heat on a body.
 - ii. Give four physical properties used for measuring temperature.

- b.
 - i. State the effects of the following:
 - ii. Increase in pressure
 - iii. Addition of common salt on the boiling point of water
 - iv. State three differences between saturated vapour and unsaturated vapour.
- c. A piece of copper of mass 100g is heated to 100⁰c and then transferred to a lagged copper can 50g containing 200g of water at 10⁰c. Calculate the final/steady temperature of the mixture. (SHC of water = 4.2j/gk; SHC of copper =0.4j/gk)
- d. The density of iron at 20⁰c is 4.8g/cm³. What is the density at 80⁰c . If the linear expansivity of iron is 1.2x10⁻⁵k⁻¹

Intended Task

The candidates were expected to list four effects of heat on a body, four physical properties used for measuring temperature, state the effects of Increase in pressure and additional of common salt on the boiling point of water. The question also tasked them to state three differences between saturated vapour and unsaturated vapour. They were required to calculate the final/steady temperature of the mixture when a piece of copper of mass 100g is heated to 100⁰c and then transferred to a lagged copper can 50g containing 200g of water at 10⁰c. (SHC of water = 4.2j/gk; SHC of copper = 0.4j/gk). The question also tested their ability to calculate the density at 80⁰c, when density of iron at 20⁰c is 4.8g/cm³ and if the linear expansivity of iron is 1.2 x 10⁻⁵k⁻¹. Many candidates listed four effects of heat on a body, but failed to list four physical properties used for measuring temperature as well as unable to differentiate between saturated and unsaturated vapour. Candidates were expected for example to differentiate between saturated and unsaturated vapour as shown below:

S/N	SATURATED VAPOUR	UNSATURATED VAPOUR
1.	The environment does not allow evaporation to take place.	The atmosphere is capable of allowing evaporation take place
2.	Pressure is affected only by temperature.	Pressure is not affected only by temperature.

Candidates performed poorly.

Question 3

- a. With diagrams only, show the:
 - i. Electric field of negative charge
 - ii. Electric field between a positive and a negative charge
- b.
 - i. Explain the terms:
 - ii. Electric field potential
 - ii. Electric field intensity
 - II. An isolated electrically charged sphere of radius and charge Q is supported on an insulator in a medium of permittivity ϵ_0 . Write down an expression for the:
 - i. Electric field intensity of the surface of the sphere
 - ii. Electric potential at the surface of the sphere

- c. The plates of a parallel plate capacitor $5.0 \times 10^{-3} \text{m}$ apart are maintained at a potential difference of $5.0 \times 10^4 \text{V}$. Calculate the magnitude of the:
- Electric field intensity between the plates.
 - Force on the electron.

Intended Task

The question tested the candidates' ability with the aid of diagrams only to show electric field of negative charge, electric field between a positive and a negative charge. They were also expected to explain the terms electric field potential, electric field intensity and to write down an expression for electric field intensity on the surface of the sphere as well as electric potential at the surface of the sphere when an isolated electrically charged sphere of radius r and charge Q is supported on an insulator in a medium of permittivity. Also they were asked to calculate the magnitude of electric field intensity between the plates and force on the electron when the plates of a parallel plate capacitor $5.0 \times 10^{-3} \text{m}$ apart are maintained at a potential difference of $5.0 \times 10^4 \text{V}$. Candidates performed well.

Question 4

- Define the following terms and state two examples each:
 - Mechanical wave?
 - Electromagnetic wave?
- A crystal oscillator in a radio transmitter having a period of $2.5 \times 10^{-6} \text{s}$ sends out waves at $3 \times 10^8 \text{m/s}$. Determine the wave length of the wave.
- State
 - The conditions under which total internal reflection occur.
 - Two practical applications of this phenomenon
- A wave is represented by the equation $y = 2 \sin \pi (0.5x - 500t)$ where all distances are measured in centimeters and time in seconds. Calculate its
 - Wave length
 - Speed

Intended Task

Candidates were expected to define and list two examples each of mechanical wave, electromagnetic wave. They were to determine the wavelength of the wave when a crystal oscillator in a radio transmitter having a period of $2.5 \times 10^{-6} \text{s}$ sends out waves at $3 \times 10^8 \text{m/s}$. The question also required the candidates to mention conditions under which total internal reflections occur and two practical applications of this phenomenon. Candidates were also to calculate the wave length and speed, when a wave is represented by the equation $y = 2 \sin \pi (0.5x - 500t)$ where all distances are measured in centimeters and time in seconds. Candidates performed well.

Question 5

- a. What factors determine the
 - i. Current produced by the photocell?
 - ii. Maximum kinetic energy of the photoelectrons?
- b.
 - i. State one similarity and one difference between photo emission and evaporation
 - ii. State four applications of photoelectric effect.
- c. A metal having a work function of 2.0eV is illuminated by light of wavelength $4.5 \times 10^{-7} \text{m}$. Calculate:
 - i. Threshold frequency
 - ii. Maximum energy of the photoelectron.($1 \text{eV} = 1.6 \times 10^{-19} \text{J}$; $h = 6.6 \times 10^{-34} \text{Js}$. $C = 3.0 \times 10^8 \text{m/s}$)
- d. State two postulates of Bohr's model of the atom and two limitations of such a model.

Intended Task

Candidates were expected to explain what factor determines the current produced by the photocell? and maximum kinetic energy of the photoelectrons?. They were to state one similarity and one difference between photo emission and evaporation as well as four applications of photoelectric effect. Candidates were also to calculate threshold frequency and maximum energy of the photoelectron when a metal having a work function of 2.0eV is illuminated by light of wavelength $4.5 \times 10^{-7} \text{m}$ given ($1 \text{eV} = 1.6 \times 10^{-19} \text{J}$; $h = 6.6 \times 10^{-34} \text{Js}$. $C = 3.0 \times 10^8 \text{m/s}$); and to list two postulates of Bohr's model of the atom as well as two limitations of such a model. Candidates performed poorly.

Candidates' Strength

- ✓ Good in calculations and drawing skills.

Candidates' Weaknesses

- ✗ Poor grammatical expression
- ✗ Poor computational skills

Suggestions for Improvement

- ❖ Candidates should take plotting of graphs seriously.
- ❖ School authorities should equip their schools with current edition of physics text books and teaching materials for the use of physics teachers.
- ❖ More qualified physics teachers should be employed and motivated salary wise, given inadequacy of such teachers in schools.
- ❖ Seminars and conferences should be constantly organized for physics teachers to improve on their methodology and pedagogy.

CHEMISTRY (005-1)

General comments on the paper

The questions covered the syllabus and candidates' performances were generally good.

Detailed Comments on each Question

Question 1

- (a) (i) Differentiate between an ion and an atom.
(ii) What is a molecule?
- (b) (i) Draw a diagram to show an atom and its component particles.
(ii) What is the electronic configuration for the following elements?

i. 23
 Na
 11

ii. 16
 0
 8

iii. 12
 C
 6

- (c) (i) Briefly describe chemical bonding and give the three different types of bonds.
(ii) Name any three attractive forces and give two differences between attractive forces and bonds.

Intended Task

The question required the candidates to differentiate between an ion and atom; and further asked to explain the meaning of molecule. They were also required to draw a diagram showing an atom and its components particles. They were expected to explain electronic configuration for the following elements:

i. 23
 Na
 11

ii. 16
 0
 8

iii. 12
 C
 6

They were equally required to describe briefly chemical bonding and give the three different types of bond as well as to name any three attractive forces. Also they were to state two differences between attractive forces and bond. Candidates could not express themselves properly. They performed poorly.

Question 2

- (a) (i) Briefly describe the following:
- I. Radioisotope.
 - II. Polymer.
- (ii) With the aid of a labeled diagram describe the three rays/ radiations from radioactivity.
- (iii) What is half-life of a radioactive element?
- (b) (i) Name two applications of radioactivity in medicine.
- (ii) Calculate the mass of a radioactive object after two years when 2.56kg of it is kept in a place. The half-life of the object is 6months.

Intended Task

The question explored the candidates' ability to briefly describe Radioisotope and Polymer. With the aid of a labeled diagram they were asked to describe the three ray tradition from radioactivity and to explain half-life of a radioactive element.

The question also tested the candidates' ability to name two applications of radioactivity in medicine as well as to calculate the mass of a radioactive object after two years when 2.56kg of it is kept in a place and the half-life of the object is 6 months.

The candidates were able to describe radioisotope and polymer, also they were able to give good definition of concepts and they show depth knowledge of radioactive. Candidates performed fairly.

Question 3

- (a) (i) Describe a laboratory experiment to explain the law of conservation of mass.
- (ii) Briefly explain the following:
- I. Molecular formula
 - II. An isomer.
 - III. A chemical equation
- (b) (i) copy and complete the result of a laboratory experiment below:

	Sample I	Sample II	Sample III
Mass of Boat alone	26.7g	27.2g	26.3g
Mass of boat +Al ₂ O ₃	77.8g	72.9g	82.7g
Mass of boat +Al	53.8g	51.4g	56.2g
Mass of Aluminum	(a)	(b)	(c)
Mass of Oxygen	(d)	(e)	(f)
Percentage of Aluminum Al ₂ O ₃	(g)	(h)	(i)

- (ii) Draw and label a Kipps Apparatus.
- (iii) Name two gases that can be prepared using a Kipps Apparatus.
- (a) (i) Briefly explain the following:
- I. Avogadro's Hypothesis
 - II. Molar volume.
 - III. Electrolyte
- (ii) How many moles of sulphur is present in 250g of a sulphur bar?
[H=1, S=32]
- (b) (i) Explain the electrolysis of a CuSO_4 solution using platinum electrodes
- (ii) State Faraday's second Law of Electrolysis.
- (iii) Name three applications of electrolysis
- (c) (i) with a well labeled diagram, describe the laboratory preparation of hydrogen
- (ii) Give the laboratory test for H_2S
- (a) (i) Briefly explain the following:
- I. A period of elements.
 - II. Periodic table
- (ii) Name three elements in period III of the periodic table and state the groups of the named elements.
- (iii) Draw the electronic configurations of Nitrogen and Neon.
- (b) (i) Briefly describe the extraction of iron from its ores.
- (ii) Name two alloys of iron
- (c) (i) Give two uses of copper metal.
- (ii) Name two factors that cause rusting of iron.

Intended Task

The candidates were expected to describe a laboratory experiment to explain the law of conservation of mass. And to briefly explain the following (i) molecular formula (ii) An isomer (iii) A chemical equation.

(b) The question expected the candidates to copy and completes the result of a laboratory experiment. The candidates were expected to draw, label a kipp Apparatus and also to name two gasses that can be prepared using a Kipps Apparatus.

(a) The question explored candidates' ability to briefly explain the following: (i) Avogadro's Hypothesis (ii) molecular volume (iii) Electrolyte and they were also asked to mention how many moles of sulphur is present in 250g of a sulphur bar. [H=1, S=32]

(b) The candidates were expected to explain the electrolysis of a CuSO_4 solution using platinum electrodes. And state Faraday's second law of Electrolysis. They were further expected to mention three applications of electrolysis.

(c) The candidates were expected to explain with a well labeled diagram, and to describe the laboratory preparation of Hydrogen as well as to give the laboratory test for H_2S .

(a) The candidates were required to briefly explain the following (i) Periodic element (ii) Periodic table. They were also expected to name three elements in period III of the periodic table and to state the group of the named elements.

The candidates were also expected to draw the electronic configurations of nitrogen and Neon and to briefly describe the extraction of iron from its ores. They were equally expected to list two names of iron.

The candidates were expected to list two uses of copper metal and name two factors that cause rusting of iron. Many candidates lack the tools to express themselves while some were able to put up proper drawings. Candidates performed fairly.

Candidates' Strength

- ✓ Ability to differentiate between an ion and an atom.

Candidates Weaknesses

- ✗ Insufficient knowledge on balancing equations
- ✗ Poor knowledge of some devices.
- ✗ Illegible Handwriting
- ✗ Poor mathematical calculations for some students.
- ✗ Poor drawing skill.
- ✗ Most of their answers are not scientifically presented.

Suggestions for Improvement

- ❖ Teachers should pay attention to computation
- ❖ Teachers should develop students drawing skills and emphasize on diagrams.
- ❖ Students should endeavour to write legibly
- ❖ Emphasis should be laid on practical laboratory work.
- ❖ Teachers/students should revise with past question before the commencement of examinations.
- ❖ Students should read journals, newsletter and magazines.

BIOLOGY (006)

General Comments on the Paper

The question covered the syllabus and the candidates' performance was generally good.

Details Comments on Each Question

Question 1

- (a) Explain the meaning of the following terms with example.
 - (i) cell
 - (ii) tissue
 - (iii) organ
 - (iv) system
- (b) List three animal-like and two plant-like characteristics of the euglena cell.
- (c) Make a label diagram (6 – 8 long) of a chlamydomonas cell.

Intended task

Candidates were expected to explain with example the meaning of cell, tissue, organ, system, list three animal-like and two plant-like characteristics of the euglena cell. They were also to make a label diagram (6 – 8 long) of a chlamydomonas cell. Candidates omitted the point that the cell is bounded by a membrane containing nuclear and cytoplasmic materials. Candidates were able to give precise and accurate answer to tissue, organ, and system. They answered question 1b very well and demonstrated good drawing skills in I.C. Candidates performed well.

Question 2

- (a) What is soil erosion?
- (b) List and give one example of any four soil components.
- (c) State three ways in which soil fertility.
 - (i) Can be increased.
 - (ii) Can be reduced.

Intended task

Candidates were expected to define soil erosion, list and give one example of any four soil components. The question also tasked the candidates to state three ways in which soil fertility can be increased. Candidates were able to give correct definition of soil erosion and correctly state soil components. Candidates performed well.

Question 3

- (a) Describe the following terms giving one example in each case:
 - (i) Corm (ii) bulb (iii) rhizome
- (b) In a tabular form, state three differences between mitosis and meiosis
- (c) How would you test for starch in a leaf?

Intended task

Candidates were expected to describe corm, bulb, rhizome, state three differences between mitosis and meiosis in tabular form as well as to show how to test for starch in a leaf. Candidates were able to explain that corm, bulb and rhizome are underground stems, stated the differences between mitosis and meiosis clearly and how to test for starch in a green leaf was well explained. Candidates performed well.

Question 4

- (a) List the respiratory organs in the following organisms:
 - (i) Amoeba
 - (ii) Mosquito larva
 - (iii) Insects
 - (iv) Flowering plant
 - (v) Birds
 - (vi) Lizard
 - (vii) Dog
- (b) (i) Define the term "tissue respiration"
- (ii) Draw and label the human respiratory system.
- (c) Write a balanced chemical reaction for respiration.

Intended task

Candidates were expected to list the respiratory organs of Amoeba, Mosquito Larva, Insects, Flowering plant, Bird, Lizard, Dog and to define the term "tissue respiration". Also they were to write a balanced chemical reaction for respiration. Candidates listed various respiratory organs of the organism correctly except Mosquito Larva; they could not answer b and c properly. Candidates performed averagely.

Question 5

- (a) Explain the need of an efficient blood transport system in complex multicellular organisms.
- (b) Give:
 - (i) Three similarities between transport in animal and plants.
 - (ii) Three differences between transport in animal and plants.
- (c) Briefly describe the structure of red blood cell and blood platelets.

Intended Task

Candidates were expected to explain the need for an efficient blood transport system in a complex multicellular organism, give three similarities between transport in animal and plants. Also the question tested the candidates' ability to give three differences between transport in animal and plants as well as to briefly describe the structure of red blood cell and blood platelets. This question was the least answered by all the candidates. Those who attempted this question performed poorly.

Question 6

- (a) (i) List three major zones in marine habitat.
- (ii) Give three examples of organisms that can be found on the zones named and state in each case one feature that adapts it to its environment.
- (b) Explain briefly the following terms:
 - (i) Phenotype
 - (ii) Hybrid
 - (iii) Genotype
 - (iv) Recessive gene

Intended task

Candidates were expected to list three major zones in marine habitat, give three examples of organisms that can be found on the zones and explain briefly phenotype, hybrid, genotype and recessive gene. This question was poorly attempted as candidates could only define the terms instead of the explanation of the question demanded. Candidates performed poorly.

Candidates' Strengths

- ✓ Good grammatical expression.
- ✓ Candidates were able to present some of the answer concisely well.
- ✓ Candidates answered well question on similarities and differences between transport in animal and plant.

Candidates' Weaknesses

- ✗ Poor presentation of diagrams.
- ✗ Less understanding of some questions
- ✗ Illogical/scattered presentation of steps for the test of starch in a leaf.
- ✗ Inadequate knowledge of zones in the marine habitat and examples.

Suggestions for Improvement

- ❖ Candidates should be taught how to draw within the give scale.
- ❖ Candidates should be encouraged to study in groups.
- ❖ Emphasis should be laid on the need for candidates to acquire current textbooks.
- ❖ Teachers should endeavour to cover every aspect of the syllabus before the commencement of the examinations.

LITERATURE IN ENGLISH (007-1)
(PROSE)

General Comments on the Paper

The question covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

AMMA DARKO: Faceless

Question 1

Discuss in detail Maa Tsurus journey from childhood to motherhood in Darkos Faceless

Intended Task

Candidates were expected to discuss in detail Maa Tsurus journey from childhood to motherhood in Darkos Faceless. Candidates performed fairly.

Question 2

Write short notes on any of the following characters:

- i. Kabria
- ii. Onko
- iii. Kwei

Intended Task

The candidates were expected to write short notes on any two of the following characters: i, Kabria ii, Onko iii, Kwei. Candidates misunderstood characters and roles. Candidates performed fairly.

BAYO ADEBOWALE: Lonely Days

Question 3

A woman first husband always remained her best". Justify this statement in the life of Yaremi before and after the death of her husband in Adebowales Lonely Days

Intended Task

Candidates were expected to justify this statement in the life of Yaremi before and after the death of her husband "a woman first husband always remained her best" in Adebowales lonely days. Candidates failed to bring out how Yaremi was able to cope with life after her husband demise. Candidates performed poorly.

Question 4

Discuss the examples, any three narrative techniques used in the novel.

Intended Task

The candidates were expected to discuss with examples, any three narrative techniques used in the novel. Candidates performed poorly.

HORACE WALPOLE: The castle of Otranto

Question 5

Examine the role of supernatural influence to the development of the novel.

Intended Task

The candidates were expected to examine the role of supernatural influence to the development of the novel. Candidates avoided the question. Candidates performed poorly.

Question 6

Examine the characters and roles of any two of the following:

- i. Isabella
- ii. Theodore
- iii. Father Jerome

RICHARD WRIGHT: Native Son

Intended Task

Candidates were expected to examine the characters and roles of any two of the following: Isabella, Thodore and Father Jerome in Richard Wrights native son. Candidates lumped characters and roles together. Candidates performed poorly.

Question 7

Discuss the themes of racism and discrimination in wrights Native Son

Intended Task

Candidates were expected to discuss the themes of racism and discrimination in wrights Native Son. Candidates performed poorly.

Question 8

Discuss in detail the first meeting of Jan Erione and Bigger and the resultant effect on the latter.

Intended Task

Candidates were expected to discuss in detail the first meeting of Jan Erione and Bigger and the resultant effect on the latter. Candidates performed poorly.

Candidates' Strength

- ✓ Candidates' answers were well presented.

Candidates' Weaknesses

- ✕ Candidates were weak in foreign textbooks.
- ✕ Candidates need to improve on their grammatical expression.

Suggestions for Improvement

- ❖ Candidates should be advised to read all the prescribed textbooks in details.
- ❖ Candidates should be advised to desist from reading key points as it present them with pedestal answers.
- ❖ Literature teachers should introduce the use of dictionary, while the lessons are on, so that any unfamiliar words should be checked.
- ❖ Candidates should buy and read recommended textbooks not key points.
- ❖ Teachers should make use of past questions, while teaching, so that the candidates should be taught how to answer questions in examinations.

LITERATURE IN ENGLISH (007-2)
(DRAMA AND POETRY)

General Comments on the Paper

The question covered the syllabus and the candidate performance was generally good.

Detailed Comments on Each Question

OGBECHÉ FRANK OGODO: Harvest of Corruption

Question 1

Discuss the significance of the visit of Ogeyi to ACP Yakubu in the development of the plot of Ogeches Harvest of Corruption.

Intended Task

Candidates were expected to discuss the significance of the visit of Ogeyi to ACP Yakubu and how the development contributed to the plot of Ogeches Harvest of Corruption.

Candidates omitted Ogeyi willingness to testify in court as witness, also failed to highlight the voice of public conscience, Ogeyi visit as the turning point and vital resolution of the plot. Candidates performed fairly.

Question 2

Explore two major themes in Ogeches Harvest of Corruption, showing their relevance to the Nigerian contemporary society.

Intended Task

Candidates were expected to explore two major themes in Ogeches Harvest of Corruption, showing their relevance to the Nigerian contemporary society.

Candidates could not explore the theme of triumph of good over evil. Also candidates failed to state the relevance of the theme to contemporary Nigerian society. Candidates performed well.

DELE CHARLEY: The blood of a stranger

Question 3

Examine the aspects of the Sierra Leonean culture as portrayed in Charley's The blood of a stranger.

Intended Task

The candidates were expected to examine the aspects of the Sierra Leonean Culture as portrayed in Charley's The blood of a stranger. Candidates performed well.

Question 4

Discuss the moral lessons one can derive from Charleys The blood of a stranger.

Intended Task

Candidates were expected to discuss the moral lessons one can derive from Charleys 'The blood of a stranger'. Candidates failed to mention that culture should not be static and should change with time. Candidates performed poorly.

LORRAINE HANSBERRY: A Raisin in the sun

Question 5

Examine critically, Hansberrys A Raisin in the sun as a satire.

Intended Task

The question explored candidates' ability to examine critically, Hansberry A Raisin in the sun as a satire. Candidates performed poorly.

Question 6

Give an account of the prevailing situation that led Mama and family to move to the white community in Hanberrys' A Raisin in the sun.

Intended Task

Candidates were expected to give an account of the prevailing situation that led Mama and family to move to the white community in Hanberrys A Raisin in the sun.

Candidates failed to highlight walters personal struggle for self-determination and final self-emancipation in the entire process. Candidates performed well.

OLIVER GOLDSMITH: She stoops to conquer

Question 7

One of the major preoccupations of Goldsmiths she stoops to conquer is on mistaken identity. Discuss.

Intended Task

Candidates were expected to discuss one of the major preoccupations of Goldsmith she stoops to conquer which is on mistaken identity. Candidates failed to treat mistaken identity as a ploy to draw attention to certain societal preoccupations such as the conflict between simple countries living versus refined town life. The preoccupation with the ideals of social class and appearance over the substance of character. Candidates performed averagely.

Question 8

Examine the character of Tony Lumpkin as a protagonist in Goldsmiths She stoops to conquer.

Intended Task

The candidates were expected to examine the character of Tony Lumpkin as a protagonist in goldsmiths she stoops to conquer. Candidates failed to highlight Tony Lumpkins actions as setting up the theme of deception/mistaken identity and driving the plot. Candidates performed fairly.

Question 9

Give a detailed account Hallowels “Dining Table”.

Intended Task

Candidates were expected to give a detailed account of Hallowels “Dining Table”. Candidates performed averagely.

Question 10

Discuss the tone and mood of Lenrie Peters “The panic of growing old”.

Intended Task

Candidates were expected to discuss the tone and mood in Lenrie Peters “The panic of growing old”. Candidates performed poorly.

Question 11

Discuss the theme of restriction in William Blakes “The School Boy”.

Intended Task

Candidates were expected to discuss the theme of restriction in William Blakes “The School Boy”. Candidates performed well.

Question 12

Examine the use of figurative devices in William Moris “The proud King”.

Intended Task

The candidates were expected to examine the use of figurative devices in William Moris “The proud King”. Candidates merely listed poetic devices or gave examples. Candidates failed to discuss how the poetic devices contributed to theme, language, tone, mood, rhythm, imagery in the poem. Candidates performed averagely.

Candidates’ Strengths

- ✓ Candidates showed good knowledge in presentation of facts in supporting their answers.
- ✓ Candidates were also good in spellings.
- ✓ Candidates presented their answers in orderly manner.

Candidates’ weaknesses

- ✗ Candidates were not good in poetry.
- ✗ Candidates were unable to differentiate between literary devices and figures of speech.

Suggestion for Improvement

- ❖ Candidates should be exposed to answering questions.
- ❖ Qualified and knowledgeable teachers should be employed to teach literature in English in schools.
- ❖ Parents should provide text books on literature for the children.
- ❖ Teachers should demystify poetry to the students, as to arouse their interest.
- ❖ Candidates need to improve on their command of the English language and develop their vocabulary.

INFORMATION COMMUNICATIONS TECHNOLOGY (ICT) 008-1

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- a. What is a computer?
- b. Write a short note on computer generation.
- c. Distinguish between analog and digital computer.

Intended Task

Candidates were required to define computer, write short note on computer generation and distinguish between analog and digital computer. Candidates performed well.

Question 2

- a. List and explain the components of the central processing unit.
- b. Mention three differences between input and output devices.
- c. Distinguish between hardware and software.

Intended Task

The questions required the candidates to list and explain the component of the central processing unit. They were also to list three differences between input and output devices as well as to distinguish between hardware and software. Candidates were able to list the components of CPU, differentiate between input and output devices, hardware and software correctly. Candidates performed well.

Question 3

- a. What is operating system?
- b. List and explain three functions of operating system.
- c. List and explain two services provided by the internet.

Intended Task

Candidates were required to define operation system, list and explain three functions of operation system. They were also asked to list and explain two services provided by the internet. Many candidates were able to define operational system and state their functions correctly. Candidates performed well.

Question 4

- a. define word processing.
- b. State four different types of formatting that take place in Ms Word document.
- c.
 - i. Outline the steps required to insert footer in a document.
 - ii. State the steps required to merge two or more cells in a table.

Intended Task

The question task the candidates to define word processing and state four different types of formatting that take place in MS word document. They were actually asked to outline the steps required to insert footer in a document and state the step required to merge two or more cells in a table. Many candidates answered the question correctly as required in the marking scheme. Candidates performed well.

Question 5

- a. Define spread sheet.
- b. Mention four types of charts in Ms Excel.
- c. Given a range of staff salaries from cell D7 to D15 on a worksheet, state the Ms Excel formula for the following calculations:
 - i. Total salary
 - ii. Average salary
 - iii. Maximum salary.

Intended Task

Candidates were required to define spreadsheet and mention four types of charts in MS Excel. The question also tested candidates' ability given a range of staff salaries from cell D7 to D15 on a worksheet; state the Ms Excel formula for these calculations: Total salary, Average salary and Maximum salary. Candidates performed well.

Question 6

- a. Define presentations.
- b. List and explain the steps involved in creating an effective presentation.
- c. Distinguish between word processing and presentation.

Intended Task

Candidates were required to define presentations, list and explain the steps involved in creating an effective presentation. They were also asked to distinguish between word processing and presentation. Many of the candidates that attempted the question mixed up their answers. Candidates performed poorly.

Question 7

- a. State four advantages of AutoCAD software.
- b. Outline the steps involved in creating a line of 40mm using Cartesian coordinates.
- c. Mention two system requirements for AutoCAD.

Intended Task

Candidates were required to state four advantages of Auto CAD software, outline the steps involved in creating a line of 40mm using Cartesian coordinates and list two system requirements for Auto CAD. Candidates did not know how to answer Auto CAD question.

Candidates performed poorly.

Candidates' Strengths

- ✓ Candidates have basic understanding of general computing.
- ✓ Candidates have a good understanding in word processing package.

Candidates' Weaknesses

- ✗ Candidates were deficient in the area of Auto CAD.
- ✗ Candidates could not answer questions that require the use of formula.
- ✗ Candidates could not answer practical questions on 4C, 6B and 7B.

Suggestion for Improvement

- ❖ Candidates should be exposed to Auto CAD.
- ❖ Candidates should be shown the practical of Auto CAD thoroughly.
- ❖ Auto CAD syllabus should be used and followed effectively by teachers when teaching Auto CAD.
- ❖ Candidates should be thought Auto CAD from the basics.

CIVIC EDUCATION (009)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

PART 1: NATIONAL ETHICS, DISCIPLINE, RIGHTS AND OBLIGATIONS

Question 1

- a. What is citizenship education?
- b. Explain six goals of citizenship education

Intended Task

The question explored candidates' knowledge of citizenship education and its goals. Candidates performed well.

Question 2

- a. Explain the term "constituted authority".
- b. Describe five roles of constituted authority.

Intended Task

Candidates were expected to explain the term Constituted authority and also to describe five roles of constituted authority. Candidates performed averagely.

PART 2: EMERGING ISSUES IN THE SOCIETY

Question 3

- a. What is youth empowerment?
- b. Highlight six importance of youth empowerment.

Intended Task

The question tested the candidates' knowledge of youth empowerment and its importance. Candidates performed averagely.

Question 4

- a. Write short note on NAFDAC.
- b. Explain five activities of NAFDAC.

Intended Task

The candidates were expected to write short note on NAFDAC and explain five of its activities. Candidates performed averagely.

PART 3: GOVERNMENT SYSTEM AND PROCESSES

Question 5

- a. Define the term civil society.
- b. Explain five problems of civil society.

Intended Task

The question tested candidates' knowledge of civil society. Candidates performed well.

Question 6

- a. Define public service.
- b. Suggest six ways of improving public service in Nigeria.

Intended Task

The question explored candidates knowledge of public service and also to suggest six ways in which public service can be improved. Candidates performed well.

Candidates' Strength

- ✓ Candidates had knowledge of the subject.

Candidates' Weaknesses

- ✗ Candidates fail to give a good explanation of the term "Constituted authority".
- ✗ Candidates were not able to give good explanation on National Agency for Food and Drug Administration and Control (NAFDAC).
- ✗ Candidates were not able to give a comprehensive definition of civil society.

Suggestion for Improvement

- ❖ Syllabus should be covered by teachers/students.
- ❖ Expert in the subject area should be made to teach the subject.

AGRICULTURAL SCIENCE (195-1)

General comments on the paper:

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- (a) State four ways in which Agricultural Production is important to Nigeria Economy.
- (b) Mention one industry that uses each of the following agricultural produce as raw materials:
 - (i) Palm Kernel.
 - (ii) Coffee seed
 - (iii) Maize.
 - (iv) Cotton
- (c) List two examples each of the following types of rocks:
 - (i) Igneous
 - (ii) Sedimentary.
 - (iii) Metamorphic.
- (d) State four principles of crop rotation.

Intended Task

The candidates were required to state four ways in which Agricultural production is important to Nigeria Economy. They were to mention one industry that uses each of these agricultural produce Palm Kernel, Coffee seed, Maize and cotton as raw materials.

They were equally expected to list two examples each of these types of rocks Igneous, Sedimentary and Metamorphic as well as to state four principles of crop rotation. The students were able to express themselves very well which shows that they have good basic knowledge of agricultural products, their uses and the different types of rocks which are fundamental to agricultural studies. Candidates performed well.

Question 2

- (a) Define agricultural mechanization.
- (b) Mention five limitation of mechanization.
- (c) Write short notes on the following:
 - (i) Bush burning
 - (ii) Clean clearing.
 - (iii) Organic manuring.
- (d) List five importance of water to crop.

Intended Task

The candidates were expected to define agricultural mechanization and mention five limitations of mechanization. They were also to write short notes on these Bush burning , Clean clearing , Organic manuring and list five importance of water to crop.
Candidates performed well.

Question 3

- (a) Discuss the cultivation of tomato under the following headings:
 - (i) Planting date.
 - (ii) Seed rate.
 - (iii) Spacing.
 - (iv) Staking.
 - (v) One disease.
- (b) Define Disease.
- (c) Explain five ways of controlling disease.

Intended Task

The candidates were required to discuss the cultivation of tomato under these headings Planting date, Seed rate, Spacing, Staking and One disease.
They were also expected to define disease and explain five ways of controlling disease. Few candidates answered the question on tomato cultivation. Correct answers were given on the planting date, spacing and staking. Varied answers were given for control of disease.
Candidates performed fairly.

Question 4

- (a) Enumerate four signs of heat in farm animal
- (b) State two functions each of the following nutrients in the diet of farm animals:
 - (i) Vitamins.
 - (ii) Protein.
 - (iii) Carbohydrate.
- (c) Write short notes on the following:
 - (i) Maintenance ration.
 - (ii) Balanced ration.
 - (iii) Production ration.
 - (iv) Malnutrition.

Intended Task

The candidates were required to enumerate four signs of heat in farm animal and state two functions each of these nutrients in the diet of farm animals: Vitamins, Protein and Carbohydrate. They were asked to write short notes on these Maintenance ration, balanced ration, Production ration and Malnutrition. Candidates performed averagely.

Question 5

Price ₦	Quantity Demanded cycle	Quantity Supplied (water)
10.00	100	15
15.00	110	28
20.00	90	60
25.00	70	70
30.00	50	100
35.00	20	160

- (a) Using graph sheet, plot the demand and supply curves for eggs using the schedule above.
- (b) From the graph, determine the equilibrium price and quantity of eggs.
- (c) At price of ₦10 per crate, determine the excess demand for egg in the market.
- (d) At the price ₦35.00 per crate, determine the excess supply of egg in the market.
- (e) State one way by which a farmer can take advantage of the relationship between demand and supply to attain high profile.
- (f) Mention the implication of the above schedule.
- (g) List four ways of fertilizer application

Intended Task

The question explored candidates' ability to plot the demand and supply curves for eggs using the schedule above on a graph sheet. From the graph, they were required to determine the equilibrium price and quantity of eggs at price of ₦10 per crate, the excess demand for egg in the market and also at the price of ₦ 35.00 per crate and the excess supply for egg in the market.

They were also expected to state one way by which a farmer can take advantage of the relationship between demand and supply to attain high profit, mention the implication of the schedule and list four ways of fertilizer application. Candidates performed fairly.

Question 6

- (a) Explain three agricultural extension methods.
- (b) Discuss eight qualities of agricultural extension agents.
- (c) What is herbicide?
- (d) Mention four precautions to be taken when spraying.

Intended Task

The candidates were expected to explain three agricultural extensions methods and discuss eight qualities of agricultural extension agents. They were also expected to define herbicide and mention four precautions to be taken when spraying. Candidates performed well.

Question 7

- (a) Define animal improvement.
- (b) Explain four aims of animal improvement.
- (c) Explain the following terms in animal production:
 - (i) Gestation.
 - (ii) Parturition.
 - (iii) Lactation.
 - (iv) Colostrums.
 - (v) Debeaking.
 - (vi) Treading.
- (d) List three effects of tick in animal.
- (e) State the law of diminishing return.

Intended Task

The question required the candidates' ability to explain four aims of animal improvement as well as these terms used in animal production Gestation, Parturition, Lactation, Colostrums, Debeaking and Treading.

They were also required to list three effects of tick in animal and state the law of diminishing return. The question on animal improvement was well answered by the candidates. Candidates performed well.

Candidates' strengths

- ✓ Candidates have basic knowledge of agricultural products, their uses and the different types of rock.
- ✓ Good answers were given for the importance of water to crops by the candidates.
- ✓ Candidates expressly answered the question on signs of heat in farm animals correctly.
- ✓ The question on animal improvement was well answered by the candidates.

Candidates' Weaknesses

- ✗ Poor knowledge of debeaking .
- ✗ There were varied answers by the candidates on ways of controlling disease in both crops and animals.
- ✗ Poor explanation on maintenance ratio.
- ✗ They were not able to plot the demand and supply curves. The units of measurement were equally not stated.

Suggestions for Improvement

- ❖ Assignment involving graph should be given to students long before the commencement of examination.
- ❖ Teachers should teach students on principles of economics which include graph.
- ❖ Students should be focused and read the questions very well, to know what is required of them before writing.
- ❖ Students should also take note of the marks allotted to each question, so they can know the extent of answers to give.
- ❖ Candidates should be able to ratio time for all questions, because many were not able to answer the five questions.

GEOGRAPHY (196-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comment on Each Question

Question 1

- a. What is population census?
- b. Give three reasons for census in your country.
- c. Explain briefly five difficulties in collecting population data in your country.
- d. Mention five economic effects on a country with an increasing proportion of old people?

Intended Task

The candidates were required to define population census, give three reasons for census and briefly five difficulties in collecting population in their country. They were also asked to mention five economic effect of a country with an increasing population of old people. Candidates performed well.

Question 2

- a. What is the manufacturing industry?
- b. Highlight any four factors for the location of an industry in a place.
- c. Explain briefly five problems affecting manufacturing industries in a named country.
- d. Highlight four solutions to solve the problems mentioned in 2c above.

Intended Task

Candidates were required to explain manufacturing industry and highlight four factors for the location of an industry in a place. They were also asked to explain briefly five problems affecting manufacturing industries in a named country and four solutions to solve the problems. Candidates performed well.

Question 3

Write a short note on bush fallowing or plantation farming in a named country under the following headings:

- a. Characteristics.
- b. Land preparation.
- c. Advantages.
- d. Disadvantages.

Intended Task

Candidates were required to write short notes on characteristics, land preparation, advantages and disadvantages of bush fallowing or plantation farming in a named country. Candidates performed well.

Question 4

- a. Outline four factors which promote international trade between your country and the outside world.
- b. Explain three problems involved in the trade between your country and other West Africa countries.
- c. Suggest and explain briefly three solutions to the problems mentioned in 4(b) above.

Intended Task

Candidates were required to outline four factors that promote international trade between their country and outside world. They were to explain three problems involved in the trade between their country and other West African countries as well as to suggest and explain briefly three solutions to the problems mentioned. Candidates performed poorly.

Question 5

- a. On a sketch map of Nigeria, locate and name
 - i. River Niger.
 - ii. Biu Plateau.
 - i. Idanre Hill.
 - ii. Cross River
 - iii. Udi Hills.
- b. State three characteristics of Nigeria Rivers.
- c. In what four ways can physical factors limit the use of rivers for transportation in Nigeria?

Intended Task

Candidates were required to sketch a map of Nigeria, locate and name River Niger, Biu Plateau, Idanre Hills, they were equally asked to state three characteristics of Nigeria Rivers and four ways physical factors can limit the use of rivers for transportation in Nigeria. Candidates performed well.

Question 6

- a. On a sketch map of Nigeria, locate and name the different forest belts.
- b. Highlight five ways in which the forest vegetation contributes to the economy of Nigeria.
- c. Outline any four problems associated with the exploitation of forest vegetation.

Intended Task

Candidates were required to locate and name the different forest belts on a sketch map of Nigeria and highlight five ways in which the forest vegetation contributes to the economy of Nigeria. They were also asked to outline four problems associated with the exploitation of forest vegetation. Candidates performed well.

Question 7

- a. Draw an outline map of Nigeria, on the map, show and name:
 - i. One area important for oil palm production.
 - ii. One area important for cattle rearing.
 - iii. One area important for cocoa production.
 - iv. One area important for groundnut production.
 - v. One town in each of 7a (i-iv) above.
- b. Outline any four factors that are associated with cattle rearing in the area shown in 7 (aii) above.
- c. Highlight any four ways in which cattle rearing or cocoa is of importance to Nigeria.

Intended Task

Candidates were required to draw an outline map of Nigeria, show and name one area important for oil palm production, cattle rearing, cocoa production, groundnut production and one town each of the above. They were also asked to outline four factors associated with cattle rearing in the area shown in (7aii) and four ways in which cattle rearing or cocoa is of importance to Nigeria. Candidates performed well.

Question 8

- a.
 - i. On a sketch map of Nigeria, show and name the major industrial zones.
 - ii. Name one local and manufacturing industry in the zone. Shown on your map.
- b. Outline any four factors that have encouraged the concentration of industries in one of the zones on your map.
- c. Explain briefly five significance of this concentration to the inhabitants of the area chosen in (b) above.

Intended Task

The question required the candidates to sketch map of Nigeria, show and name the major industrial zones. They were also to name one local and one manufacturing industries in the zone as shown on the map. The candidates were equally asked to outline four factors that have encourage the concentration of industries in one of the zones in the map and explain briefly five significance of this concentration to the inhabitants of the area chosen in question (b) . Candidates that answered this question performed well in 8b and 8c but many of the candidates lack the ability to sketch map of Nigeria correctly. Candidates performed well.

Candidates' Strengths

- ✓ Candidates were good in geographical terms
- ✓ Good grammatical expression

Candidates' Weaknesses

- ✕ Poor drawing skill.
- ✕ Poor understanding of questions.

Suggestions for Improvement

- ❖ Candidates should be thought on how to interpret question.
- ❖ Emphasis should be laid on drawing skill
- ❖ Candidates should be encouraged to read and cover their syllabus before examinations.

CHRISTIAN RELIGIOUS STUDIES (197)

General Comment on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- a. Narrate the first account of the creation.
- b. In what two ways does this account demonstrate the nature of God?

Intended Task

The candidates were expected to narrate the first account of the creation and explain two ways the account demonstrate the nature of God. Candidates performed well.

Question 2

- a. Outline the circumstances that led to the gift of manna and quails in the wilderness.
- b. What does this episode reveal about the nature of God?

Intended Task

The question tasked candidate's ability to outline the circumstances that led to the gift of manna and quails in the wilderness. They were equally asked to explain what the episode reveals about the nature of God. Candidates performed poorly.

Question 3

- a. What was Jesus teaching about himself as the living water?
- b. In what two ways is his teaching significant?

Intended Task

Candidates were expected to explain Jesus teaching about himself as the living water and two significant ways in his teaching. Candidates performed well.

Question 4

- a. State three appearances of Jesus after his resurrection.
- b. Give five reasons why Jesus appeared to his disciples.

Intended Task

Candidates were expected to state three appearances of Jesus after his resurrection and give five reasons why Jesus appeared to his disciples. Candidates performed well.

Question 5

- a. What do you understand by the term civic responsibility?
- b. State Paul's teaching on the right attitudes to civic authority.

Intended Task

The question tested candidates' knowledge of civic responsibility and to state Paul's teaching on the right attitudes to civic authority. Candidates performed averagely.

Question 6

Explain the following concepts:

- a. Skill acquisition.
- b. Empowerment and creativity.

Intended Task

The candidates were expected to explain skill acquisition, empowerment and creativity. Candidates performed well.

Candidates' Strengths

- ✓ Candidates answered and understood the first account of the creation and ways the account demonstrated the nature of God correctly.
- ✓ Candidates answered question on Jesus teaching about himself as the living water correctly.
- ✓ Candidates answered question on the appearances of Jesus after his resurrection and reasons why Jesus appeared to his disciples correctly.
- ✓ Candidates answered question on skill acquisition, empowerment and creativity correctly

Candidates' Weakness

- ✕ Candidates lack understanding of outlining the circumstances that leads to the gift of manna and quails in the wilderness and what the episode reveals about the nature of God.

Suggestions for Improvement

- ❖ Candidates should be encouraged to buy Revised Standard Version of the bible.
- ❖ Teachers should endeavor to cover the syllabus.
- ❖ Schools should have good Christian Religious Study textbooks in the libraries.

ISLAMIC STUDIES (198)

General Comments on the paper

The questions covered the syllabus and the candidates' performances were generally good.

Detailed Comments on each question

Question 1

QUAR'AN

Answer at least one question from this part

1. (a) Translate suratu lahab in English.
(b) Comment briefly on the surah.
(c) State two lessons derivable from the surah.

Intended Task

The question required the candidates to translate Suratu Lahab in English , give brief comments on the Suraah and also to state two lessons derivable from the Surah. Candidates performed fairly.

Question 2

- (a) Difference makkan surahs from madina surahs.
(b) State three importance of the Quran to mankind.

Intended Task

The question requires the candidates to differentiate mecca surahs from madina surahs and also to state three importance of the Quar'an to mankind. Candidates performed well.

Question 3

HADEETH

Answer at least one question from this part:

- (a) Translate Hadeeth no 32 of Anawawi's collections in English
(b) What are the lessons contained in the Hadeeth?

Intended Task

The candidates were expected to translate Hadeeth no 32 Anawawi's collection in English and explain the lesson contained in the Hadeeth. The candidates were unable to comment on the

Hadeeth while some had wrong spellings and could not translate the Hadeeth correctly. Candidates performed poorly.

Question 4

- (a) Differentiate Hadeeth from sunnah.
- (b) What is Hadeeth Qudsi?
- (c) State the two parts of a Hadeeth.

Intended Task

The candidates were required to differentiate Hadeeth from Sunna , explain the meaning of Hadeeth Qudsi and state two parts of a Hadeeth. Candidates performed averagely.

Question 5

(FIQH, SEERAH, TARIKH, TANHEED, TAHDAIB)

- (a) What is Tahara?
- (b) Enumerate the three types of tahara and explain the meaning of each.

Intended Task

The question tested candidates' knowledge on Tahara. They were also to enumerate the three types of tahara and explain the meaning of each. Some were unable to give types of tahara but attempted **5b** very well. Candidates performed fairly.

Question 6

- (a) Who was the first wife of prophet Muhammad (saw)
- (b) The prophet (saw) had how many children?
- (c) In what year was the treaty of Hudaibiyah signed?
- (d) Briefly discuss prophet's migration from macca to medina.
- (e) Who was the last among the four rightly guided caliphs?

Intended Task

The candidates were expected to give the name of first wife of the prophet mohammed (saw) and to state how many children the prophet (saw) had. They were also required to further state the year the Hudaibiyah treaty was signed and briefly discuss the prophets's migration from macca to medina. They were to name the last among the four rightly guided caliphs. It was a wide topic and they had difficulties in answering it. Candidates performed poorly.

Candidates' Strengths

- ✓ Many of the candidates performed well in the translation and comment on surah.
- ✓ They equally did well in Hadeeth and the importance of Qur'an to mankind.
- ✓ They also tried in explaining the different between Hadeeth and Sunnah.

Candidates Weakness

- ✂ The candidates lack the necessary techniques as required in answering questions on Islamic Studies.

Suggestions for Improvement

- ✓ The teachers should teach Hadeeths properly and the Sunnah of the prophets (saw).
- ✓ The candidates should equally read Qur'an properly and regularly.
- ✓ The candidates should equally be adviced to purchase Islamic textbooks to improve their knowledge on the subject.

SECTION TWO

BUSINESS TRADES

TYPEWRITING 35 W.P.M. (411)
SPEED AND ACCURACY TEST

General Comments on the Paper

The question covered the syllabus and the candidate performance was generally fair.

Detailed Comments on Each Question

Task 1

Type the following on A4 paper in double line spacing. The use of eraser is not allowed.

Not all drugs come from plants. Some come from animals, while others are man-made (Synthetic) drugs, usually developed because it is easier or cheaper to make the chemical compound in a factory than to get it from a plant.

Unlike the ‘cure halls’ of the past, modern drugs are developed for different parts of the body, or even for different functions in the same area. . One patient may need a drug to make the heart beat more slowly, while another may need a drug to make the heart beat more strongly. Some drugs work on the kidneys and urinary system, helping to control how much water stays in the body and how much becomes urine. Various drugs act on the stomach, intestines and laxatives as well as drugs to control diarrhea are found in most homes.

Anesthetic drugs are especially important, before they were invented surgery was so painful that it seemed like torture and the surgeon had to work very fast. With modern anesthetics the patient cannot feel anything, so the surgeon has time to work carefully, and he can even perform operations on the heart.

Drugs may bring problems too. In some cases people have to take steadily increasing doses to get the same relief they first get from a small dose. Unfortunately the larger doses harm their body, and may turn them into addicts. People who become addicted to sleeping pills or to drugs from opium, have to go on taking harmful doses because they feel very ill if they stop

Intended Task

Candidates were required to type the above task on A4 paper in double line spacing and to avoid the use of eraser. Many candidates lacked speed. Candidates performed fairly.

Task 2

Type the following on A4 Headed paper. Take a carbon copy. Address an envelope.

Ref. MBA/MOB (Today's date)

Chief Bola Olowu
Gangje Co-operative Society
Kulende Estate
KABAWA

Dear Sir

Appointment as a Sole Agent // caps & us.

us: With reference to our recent discussion at the Kabba
NP Zonal office, we are pleased to inform you that you
have been appointed as our Sole Agent for the Central
Zone for an initial period of one year. [We enclose
two sets of our technical literature and copies of the
current price lists for yr. action.]

run or However, we wd. point out that some of our
products are being modernized, and there is likely to be
a revised price list within the next few weeks.
Delivery is usually within five to ten days from the
date of order.

We would like to advise that your stock remains
within the minimum re-order level until you are quite
familiar with our products.

We take this opportunity to wish you every
success in your new venture.

Yrs. ffly.
ALATA GINGER BISCHITS

James D. Dogo
Gen. Mgr.

Intended Task

Candidates were required to type on A4 headed paper, take a carbon copy and address an envelope. Many candidates rendered wrong date and some did not render at all, some candidates failed to address the envelope while some other candidates failed to take a carbon copy. Candidates performed fairly.

Task3

Type the following on A4 plain paper in double line spacing.

Night Markets // op. cape.

Str A market is an open place where goods, money and ownership change hands. In the traditions of some people in this country, the market place or square was and still the venue of gatherings where vital information are disseminated. Places ~~designated~~ ^{designed} as market square are still preserved today as the great assembly of elders during which far-reaching decisions are taken in consultation with the people.

R Reasons for the establishment of Night Markets vary from one locality to another. For example, there are tales about a night market in a particular area of the Yorubaland which was operated in such a strange conditions that some people have concluded that it was largely patronised by ghosts and various spirits believed to be dead people who have migrated from various other places to settle in that area. ←

run to That was the night market where there was no single light, and all transactions were carried out in the dark. On the other hand, explanations offered by some people for the establishment of night market in another area, was the traditional occupation of the people.

night The men were essentially weavers, while the women engaged in pottery. It was at such markets that the weavers sold pieces of cloth woven in the day to provide themselves with money to buy thread and food items. Also, it was at such night markets that the women potters exchanged their clay wares for cash which they eventually use for the purchase of other personal

NP requirements. [The night market phenomenon is largely responsible for the tradition of late night meal in some parts of the country. Women would not start preparing meals until they have returned from the market, so that as late as 10 o'clock in the night, some households would still be actively preparing food for their children who, in most cases, would have slept off. At such nights, it was possible to tell when neighbouring families were feasted with pounded yam by the repeated sounds of the pestles against mortars.

Intended Task

Candidates were required to type on A4 plain paper in double line spacing. Some candidates failed to render abbreviated words in full. Candidates performed poorly.

Task 4

Type the following on a memorandum form.

From: The Registrar
To: All Students

INDUSTRIAL ACTION // Initial cap. \$ 45.

It is now confirmed that the Kwa Thomas University, Ife-Oukotun is to resume full classes with effect from next Monday. This is as a result of the ^{cancellation} ~~suspension~~ of the Industrial Action embarked upon by the Soc. Staff Union of the University to press home the implementation of the Agreement signed with the Proprietor.

7) All returning Students are therefore advised to resume immediately, and also note that the time-table for the second semester exams remains unchanged. Students who fail to turn-up for the exams will have themselves to blame because there is no provision for alternative papers.

Intended Task

Candidates were required to type the above on a memorandum form. There was no serious case of failure in this question. Candidates performed well.

Task 5

Type the following on plain A4 paper. Rule as shown.

League Table / SP. CAPS.
DIVISION TWO MATCHES

TEAMS	P	W	D	L	GF	GA	PTS
ZONE A: IBADAN							
Ilesha Bombers	3	2	1	-	2	-	5
Ifa Black Scorpions	2	1	1	-	7	2	3
Osun United	2	1	1	-	1	-	3
Idanre Crokes	2	1	-	1	1	1	2
Ondo Giant Killers	3	-	-	3	-	6	-
ZONE B: KADUNA							
Maraba Sharks	2	2	-	-	15	5	4
Kaduna Tornadoes	2	2	-	-	10	6	4
Shiroro Highlanders	2	1	1	-	1	-	3
Zaria Red Devils	2	1	1	-	4	-	3
Sahara Storms	3	1	-	2	2	2	2

Intended Task

Candidates were required to type the following on plain A4 paper and rule as shown. Many candidates displayed the tabulation poorly. Candidates performed poorly.

Candidates' Strength

- ✓ Candidates did well in the typing of memorandum.

Candidates' Weaknesses

- ✕ Lack of speed.
- ✕ Rubric/marginal instructions were not followed.
- ✕ Most candidates did not type the abbreviated words.
- ✕ Many candidates failed to use the correct paper.
- ✕ Many candidates could not place the carbon paper correctly.

Suggestions for Improvement

- ❖ Schools should endeavor to acquire enough typewriters and also have them serviced regularly.
- ❖ Schools should put in more effort to teach the students.

OFFICE PRACTICE (413)

General comments on the paper

The questions covered the syllabus and the candidates' performance was generally average.

Detailed comments on each question

Question 1

- (a) Briefly explain index memory aid.
- (b) State ten importance of business information.

Intended Task

Candidates were expected to briefly explain index memory aid and to state ten importance of business information. Candidates performed poorly.

Question 2

- (a) What is committee?
- (b) List and explain the functions of three types of committee

Intended Task

The candidates were expected to define the term committee, list and explain the functions of three types of committee. Candidates performed well.

Question 3

- (a) What is office furniture?
- (b) List three kinds of office furniture.
- (c) State five differences between duplicating and photocopying machines.

Intended Task

The candidates were expected to define office furniture, mention three kinds of office furniture and state five differences between duplicating and photocopying machines. Candidates performed well.

Question 4

- (a) What is an open cheque?
- (b) Write short notes on the following:
 - (i) Standing order
 - (ii) Credit transfer.
 - (iii) Postal order
 - (iv) Money order
 - (v) Certified cheque
 - (vi) I.O.U

Intended Task

The candidates were expected to define an open cheque and to write short notes on these Standing order, Credit transfer, Postal order, Money order, Certified cheque and I.O.U. Candidates performed well.

Question 5

Explain the following terms used in business meetings:

- (i) In camera
- (ii) Amendment.
- (iii) Proxy
- (iv) Teller
- (v) Casting.

Intended Task

The question tested the candidates' ability to explain these terms as used in business meetings: In camera, Amendment, Proxy, Teller and Casting. Candidates performed well.

Question 6

State the uses of each of the following mail room equipment:

- (i) Envelop sealing machine.
- (ii) Jogger.
- (iii) Perforator
- (iv) Stapler.
- (v) Franking machine.

Intended Task

The candidates were expected to recall the uses of these mail room equipment: Envelop sealing machine, Jogger, Perforator, Stapler and Franking machine. Candidates performed well.

Question 7

- (a) What is the difference between recorded delivery and registered post?
- (b) Mention five services rendered by NIPOST.

Intended Task

Candidates were expected to differentiate between recorded delivery and registered post and to mention five services rendered by NIPOST. Candidates performed well.

Question 8

State three functions each of the following departments in an organization:

- (i) Account department.
- (ii) Personnel department
- (iii) Marketing department
- (iv) Transport department
- (v) Administrative department.

Intended Task

The candidates were expected to state three functions each of these departments in an organization: Account department, Personnel department, Marketing department, Transport department and Administrative department. Candidates performed well.

Question 9

Explain five factors you will consider before you buy an office machine for your office

Intended Task

Candidates were expected to explain five factors to be considered before buying an office machine for the office. Candidates performed well.

Question 10

- (a) Define incoming mail.
- (b) List and explain four steps you will take in dealing with incoming mails.

Intended Task

The candidates were required to define incoming mail, list and explain four steps to be taken in dealing with incoming mails. Candidates performed well.

Candidates' Strengths

- ✓ Good interpretation of questions
- ✓ Ability to answer correctly questions on listing of items.

Candidates' Weaknesses

- ✕ Poor grammatical expression by the candidates.
- ✕ Lack of understanding of some of the questions
- ✕ Illegible handwriting.

Suggestions for Improvement

- ❖ Teachers should make efforts to cover the syllabus before examination.
- ❖ Qualified teachers should be employed.
- ❖ Students should be taken for excursions to have empirical experience in business or offices.
- ❖ Refresher courses, seminars, workshops should be regularly organized for teachers by both government and NGO in conjunction with examination bodies and other relevant stakeholders in education to update and keep the teachers update.
- ❖ Institutions should be compelled to sponsor their teachers for these workshops.

COMMERCE (421)

General Comments on the paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on each question

Question 1

List and explain five reasons why commerce is important in the life of a nation.

Intended Task

The candidates were expected to list and explain five reasons why commerce is important in the life of a nation. Candidates performed well.

Question 2

- (a) What is production?
- (b) Illustrate with a labeled diagram the main divisions and sub-divisions of production.

Intended Task

The question required candidates to recall the meaning of production as well as illustrate with a labeled diagram the main divisions and sub-divisions of production. Candidates performed well.

Question 3

- (a) State the difference between an ordinary invoice and proforma invoice.
- (b) Explain the following terms used in connection with an invoice.
 - (i) 5% trade discount
 - (ii) Net 3 months
 - (iii) E.F.O.E
 - (iv) 2½% cash discount
 - (v) Carriage forward

Intended Task

The question required the candidates to state the difference between an ordinary invoice and a proforma invoice as well as explain the following terms used in connection with an invoice: 5% trade discount, Net 3 months, E.F.O.E, 2½% cash discount and Carriage forward. Candidates performed fairly.

Question 4

- (a) Illustrate any five channels of distribution of manufactured goods.
- (b) Explain five reasons why the manufacturers sell directly to consumers.

Intended Task

The candidates were expected to illustrate any five channels of distribution of manufactured goods and explain five reasons why manufacturers sell directly to consumers. Candidates performed well.

Question 5

- (a) List five departments we can find in an organization.
- (b) Explain five functions of the personnel department in a business organization.

Intended Task

The candidates were expected to list five departments we can find in an organization as well as explain five functions of the personnel department in a business organization. Candidates performed well.

Question 6

- (a) Who is an agent?
- (b) Explain six duties of an agent to his principal.

Intended Task

The questions tested the candidates' ability to recall the meaning of an agent and explain six duties of an agent to his principal. Candidates performed fairly.

Question 7

- (a) What is contract?
- (b) Explain six elements of a valid contract.

Intended Task

The question tested the candidates' ability to recall the meaning of contract and explain six elements of a valid contract. Candidates performed well.

Question 8

- (a) Identify five environmental factors that affect business.
- (b) Explain five reasons why small scale retail trades are many in Nigeria.

Intended Task

The candidates were expected to identify five environmental factors that affect business and explain five reasons why small scale retail trades are many in Nigeria. Candidates performed fairly.

Question 9

Explain differences between nationalized industries and public liability companies under these headings:

- (i) Ownership
- (ii) Capital
- (iii) Aim
- (iv) Control
- (v) Publication of account

Intended Task

The candidates were expected to explain the differences between nationalized industries and public liability companies under these headings: Ownership, Capital, Aim, Control and Publication of account. Candidates performed well.

Question 10

- (a) Explain five reasons why consumers need protection.
- (b) State five government legislations aimed at consumer protection.

Intended Task

The candidates were expected to explain five reasons why consumers need protection and state five government legislations aimed at consumer's protection. Candidates performed well.

Candidates' strengths

- ✓ Candidates performed well in question 1,2,5,9 and 10
- ✓ Good presentation of answers
- ✓ Good understanding of the questions

Candidates' Weakness

- ✗ Poor grammatical expression

Suggestions for Improvement

- ❖ Students should improve in their grammar by reading novels, magazines, newspaper etc.
- ❖ Teachers should endeavour to teach students English language to improve their vocabulary.

FINANCIAL ACCOUNTING (423)

General Comments on the Paper

The questions cover the syllabus and the candidates' performance was generally average.

Detailed Comments on Each Question

Question 1

Briefly explain the following terms and give two examples for each of them:

- i. Fixed assets
- ii. Current assets
- iii. Long term liabilities
- iv. Current liabilities
- v. Intangible assets

Intended Task

The candidates were expected to explain these terms, give two examples for each: Fixed assets, Current assets, Long term liabilities, Current liabilities and Intangible assets. Candidates performed well.

Question 2

- a. List four steps involved in the conversion of incomplete records and single entry accounts to double entry accounts.
- b. Mention five features of income and expenditure account.
- c. Name and explain the objectives for the preparation of final accounts.

Intended Task:

The candidates were required to list four steps involved in the conversion of incomplete records and single entry account to double entry accounts. They were also expected to mention five features of income and expenditure account as well as explaining the objectives for the preparation of final accounts. Candidates performed fairly.

Question 3

From the following trial balance of Habibi, prepare trading, profit and loss account for the year ended, 31st December 2010 and a balance sheet as at that date.

Particulars	DR	CR
	N	N
Capital		38,400
Loan		20,000
Drawings	6,500	
Cash at bank	10,980	
Cash in hand	552	
Plant and machinery	43,000	
Furnitures and fittings	5,000	
Motor vehicles	5,920	
Sundry debtors		4,000
Salaries	23,416	
Discount allowed	4,880	
Discount received		10,220
Electricity	6,520	
Insurance	592	
Rents and rates	5,680	
Stock at 1 st January, 2010	18,600	
Carriage inwards	1,300	
Carriage outwards	720	
Returns inwards	2,900	
Returns outwards		5,064
Purchases	108,984	
Sales		178,900
	256,584	256,584

Additional information:

Stock at 31st December, 2010 was N21 , 800

Intended Task

From the following Trial Balance of Habibi;

The candidates were expected to prepare Trading, Profit and loss account for the year ended 31st December 2010 and also a balance sheet as at that date.

Candidates performed poorly.

Question 4

The following information was extracted from the ledgers of ABC Ltd, for the month of march, 2008:

	₦
1/3/2008 Sales of goods on credit	4,002
Debit balance in the purchases ledger	78
31/3/2008 Sales of goods on credit	10,000
Returns inwards	800
Bad debts written off	120
Cash received from customers	4,990
Discount allowed	110
Purchases on credit	6,780
Cash paid to suppliers	3,240
Returns outwards	200
Dishonored cheques of customers	400
Discount received	220
Interest charged to customers on overdue accounts	20

You are required to prepare:

- A. Total debtors control account
- B. Total creditors control account for the month of march, 2008

Intended Task

The candidates were required to prepare a total debtors control account and a total creditors control account for the month of March, 2008. Candidates performed poorly.

Question 4

Akpan Udoh Enterprises carried out business transactions during the month of October 2008 as follows:

- October 1st: Started business by introducing N500, 000 into a bank account.
- October 5th: Bought N100, 000 of fixtures and fittings from Audu supplies Ltd. on credit.
- October 9th: Bought office stationery N2, 000 paying by cheque.
- October 12th: Bought goods for resale N50, 000 paying by cheque.
- October 13th: Paid Audu supplies Ltd. a cheque for 100,000.
- October 15th: Rent of N60, 000 for business premises was paid by cheque.
- October 18th: Sold some of the goods for N40, 000 on credit to Talatu.
- October 20th: Bought goods on credit from Sunny Traders Ltd. for N70, 000.
- October 23rd: Bought N15, 000 of fixtures and fittings from Audu supplies Ltd. on credit.
- October 26th: Received cheque payment of N40, 000 from Talatu.
- October 28th: Bought office stationery for N1, 000 paying by cheque.
- October 31st: Sold goods for N30, 000 receiving cheque in payment.

You are required to record the transactions in the relevant ledger accounts, balance off and extract a trial balance as at 31st December 2008.

Intended Task

The question required the candidates' ability to record the transactions in the relevant ledger account, the balance off and also to extract a trial balance as at 31st December, 2008. Candidates performed well.

Question 5

The following information was extracted from the books of Godswill club of Nigeria for year ended 31st December, 2009.

	Receipts N	Payments N
Subscriptions	6,900	
Donations	7,500	
Interest received	240	
Salaries		2,250
Scholarship		2,220
Drugs for the less privileged		2,070
Printing and stationery		510
Office fittings		3,090
Investment		4,500
	14,640	14,640

Additional information:

- a. Subscriptions outstanding with members N300
- b. Accrued expenses: N
 - i. Salaries 300
 - ii. Scholarship 960
 - iii. Drugs 180
 - iv. Printing and stationery 240

You are required to prepare for the club:

- A. Income and expenditure accounts
- B. Balance sheet as at 31st December, 2009.

Intended Task

The candidates were required to prepare income and expenditure accounts and also Balance sheet as at 31st December, 2009 for Godswill club of Nigeria. Candidates performed well.

Question 6

An inexperienced book-keeper prepared Trial balance which failed to agree. The difference of N85 credit was kept in a suspense account. The following errors were later discovered.

- a. A cash payment of N180 had been posted as a receipt in the bank column of the cash book.
- b. The sales account was overcast by N350 and the purchases Account was also overcast by 350.
- c. A returns inwards N190 was not recorded in the books
- d. Bank charges of N185 had been posted into the cash book. No entry was made elsewhere in the books.
- e. The opening balance of a debtors Account had been brought down as N1, 785 instead of N1, 857.
- f. An item of fixed asset sold for N2, 500 had been debited to cash and included in sales.
 - i. Prepare journal entries to effect the necessary corrections.
 - ii. Write up the suspense Account.

Intended Task

The candidates were expected to prepare journal entries to effect the necessary corrections and also to write up the suspense account. Candidates performed poorly.

Candidates' Strengths

- ✓ Candidates answered question on final account of Habibi correctly.
- ✓ Ability to answer question on features of income and expenditure account correctly.
- ✓ Ability to answer question on fixed assets, current assets, long-term liabilities and intangible assets correctly.
- ✓ The candidates answered question on the ledger accounts of Akpan Udoh and the trial balance correctly.
- ✓ Candidates were able to prepare the final account of Godswills Club of Nigeria correctly.

Candidates' Weaknesses

- ✗ Inability to answer question on dates on accounts and writing of headings.
- ✗ Candidates used old method in preparing accounts.
- ✗ Candidates used vertical presentation instead of T. Shape.
- ✗ Poor knowledge of journal entries.

Suggestions for Improvement

- ❖ Syllabus should be covered by the teachers.
- ❖ Provision of account textbooks for candidates.
- ❖ New method of presenting accounts should be emphasized by the teachers.
- ❖ Headings and dates on all accounts should be prepared.

SALEMANSHIP (431)

General Comment on the paper

The questions covered the syllabus and the candidates' performance was good.

Detailed comments on each question:

Question 1

- (a) Outline four different classes of social group.
- (b) State two ways in which social group can influence consumer behavior
- (c) Define the term consumer behavior.

Intended Task

Candidates were expected to list four different classes of social group and to state two ways in which social group can influence consumer behaviour. Also, define the terms consumer behavior and outline four factors that influence consumer behavior. Candidates performed well.

Question 2

- (a) Explain the term "personality"
- (b) Explain four ways personality influences consumer behavior.
- (c) Define the term "Culture"

Intended Task

Candidates were expected to explain the term personality, four ways personality influences consumer behavior and to define the term "culture". Candidates performed well.

Question 3

- (a) Define a contract
- (b) List five conditions necessary for a valid contract.
- (c) Explain three ways by which a contract can be terminated.

Intended Task

The candidates were expected to define the term contract, list five conditions necessary for a valid contract and explain three ways by which a contract can be terminated. Candidates performed well.

Question 4

- (a) What is hire purchase?
- (b) State two differences between Hire Purchase and deferred payment
- (c) State two provisions of Hire Purchase Act.
- (d) Mention three advantages of Auction Sale.

Intended Task

The question tested candidates' knowledge of hire purchase and to state two differences between hire purchase and deferred payment. They were also to state two provisions of the hire purchase Act and mention three advantages of Auction sale. Candidates performed well.

Question 5

- (a) Define the term "Negotiable Instruments"
- (b) List four types of negotiable instruments.
- (c) Explain two of the instruments mentioned above.

Intended Task

The question tested the candidates' ability to define the term "Negotiable Instruments". They were also to list four types of negotiable instruments and explain two of them. Candidates performed well.

Question 6

- (a) Explain the following documents:
 - i. Certificate of incorporation
 - ii. Certificate of trading
 - iii. Memorandum of association
 - iv. Article of association
- (b) State three features of Public Liability Company.

Intended Task

Candidates were expected to explain the following documents: Certificate of incorporation, Certificate of trading, Memorandum of association, Article of association and to state three features of public liability company. Candidates performed well.

Question 7

- (a) Distinguish between a salesman and sales carrier.
- (b) List four advantages of personal selling.
- (c) List five features of a salesman.

Intended Task

Candidates were expected to explain the difference between a salesman and a sales carrier, list four advantages of personal selling and five features of a salesman. Candidates performed poorly.

Question 8

- (a) Explain three differences between a prospect and a lead.
- (b) State four merits of pre-approach in planning sales.
- (c) List five problems of pre-approach in planning.

Intended Task

Candidates were required to explain three differences between a prospect and a lead. They were to state four merits of pre-approach in planning sales and also to mention five problems of pre-approach in planning. Candidates performed poorly.

Question 9

- (a) Explain the term sales presentation
- (b) Define the term “Approach”
- (c) List five types of approach needed in sales presentation.

Intended Task

Candidates were expected to explain the term sales presentation, define the term “Approach” and list five types of approach needed in sales presentation. Candidates performed averagely.

Question 10

- (a) Define the term ‘Objections’.
- (b) List three methods of handling objections.
- (c) Define the term ‘follow-up’
- (d) Explain three methods of closing sales.

Intended Task

Candidates were required to define the term objection and list three methods of handling objections. They were also expected to define the term ‘follow-up’ and explain three methods of closing sales. Candidates performed poorly.

Candidates’ Strengths

- ✓ Good interpretation of the questions
- ✓ Ability to answer correctly question on listing of item.
- ✓ Good presentation of answers.

Candidates' Weaknesses

- ✕ Many of them did not know the meaning of Approach.
- ✕ Many of them avoided question 10
- ✕ Poor understanding of Questions 7-10

Suggestions for Improvement

- ❖ More experience teachers on salesmanship should be employed
- ❖ Relevant textbooks should be made available to students.
- ❖ Teachers /students should endeavour to cover syllabus before commencement of examinations.

TOURISM (441)

General comments on the paper

The questions covered the entire syllabus and the candidates' performance was generally good.

Detailed comments on each question

Question 1

- (a) Define Insurance.
- (b) State the benefits of insurance coverage for travelers.

Intended Task

Candidates were required to define insurance and to state the benefits of insurance coverage for travelers. Candidates performed well.

Question 2

- (a) What is transportation?
- (b) List the various mode of transportation in Nigeria.
- (c) What are the problems associated with transportation in Nigeria?

Intended Task

Candidates were required to define transportation and to list transportation in Nigeria as well as the problems associated with transportation in Nigeria. Candidates performed well.

Question 3

What are the important requirements of a successful destination?

- (a) What is infrastructure?
- (b) State its relevance in destination building?

Intended Task

Candidates were required to state important requirements of a successful destination define the term infrastructure as well as state its relevance in destination building. Candidates performed fairly.

Question 4

- (a) Define commission.
- (b) What are the methods used by operator?
- (c) List sources of income for travel agencies
- (d) Explain one of the sources of income for travel agencies

Intended Task

The candidates were expected to define the term commission and state the methods used by operator. They were also to list the sources of income for travel agencies. The candidates performed poorly.

Question 5

- (a) List six factors that influence agricultural activities in Nigeria.
- (b) Explain four of the listed factors above that influence agricultural activities in Nigeria.

Intended Task

The candidates were expected to list six factors that influence agricultural activities in Nigeria and to explain four of them. The candidates performed poorly.

Question 6

State the importance of the following in the tourist industry:

- (i) Visa
- (ii) Credit card
- (iii) Accommodation
- (iv) Advance reservation form
- (v) Cancellation
- (vi) Transportation

Intended Task

The candidates were expected to state the importance of the following in the tourist industry: Visa, Credit card, Accommodation, Advance reservation form, Cancellation and Transportation. Candidates performed well.

Candidates Strength

- ✓ The candidates performed well in question 1, 2 and 6.

Candidates' weakness

- ✗ The candidates' performance was weak in the following questions 3a, 3c, 4a, 4c and question 5a and 5b.

Suggestions for improvement

- ❖ Making the questions fit into their level standard.
- ❖ Working with the syllabus to set the questions base on tourism related not agriculture relate

SECTION THREE

TECHNICAL TRADES

INTRODUCTION TO AGRICULTURAL SCIENCE, MATERIALS, IMPLEMENT AND MACHINES (011-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

Enumerate the main functions of the following components of a seed drill.

- i. Seed box
- ii. Seed metering device.
- iii. Furrow opener
- iv. Transport device
- v. Frame

Intended Task

Candidates were expected to explain the terminologies listed in the question. Candidates performed well.

Question 2

- a. Briefly explain the hitching of implements on a tractor by
 - i. Disk plough?
 - ii. Mouldboard plough?

Intended Task

The candidates were expected to explain the hitching of implement on a tractor by disk plough and mouldboard plough. Candidates performed averagely.

Question 3

- a. Using a sketch, describe the genital tract of a hen.
- b. Enumerate government programs under the following headings.
 - i. Extension services
 - ii. Loan scheme
 - iii. Subsidy

Intended Task

The candidates were expected to draw the genital tract of a hen and also enumerate these government programs: Extension service, loan schemes and subsidy. Candidates performed well.

Question 4

Write short notes on the following.

- i. Welding torch
- ii. Welding nozzles or tip
- iii. Automatic pressure regulators

Intended Task

The candidates were expected to write short notes on : Welding torch, Welding nozzles or tip and Automatic pressure regulators. Candidates performed poorly.

Question 5

- a. List the various forms in which grass is used for animal feed.
- b. Mention three devices used for harvesting forage.
- c. Give a detailed drawing of a cutter bar mower showing knife clips.

Intended Task

The candidates were expected to list the various forms in which grass is used for animal feed, list three devices used for harvesting forage and also to give a detailed drawing of a cutter bar mower showing knife clips. Candidates performed well.

Question 6

- a. Explain the processes of soil formation by weathering of rocks.
- b. Explain the importance of soil profile.
- c. List the effect of soil acidity.

Intended Task

Candidates were expected to explain the process of soil formation by weathering of rocks, the importance of soil profile and also list the effect of soil acidity. Candidates performed well.

Question 7

- a. Describe with a labeled diagram the construction and working principle of a disc plough.
- b. State four maintenance procedures required on a disk plough.

Intended Task

The candidates were expected to describe with a labeled diagram the construction and working principle of a disc plough as well as to list four maintenance procedures. Candidates performed well.

Candidates' Strengths

- ✓ Candidates answered the functions of furrow opener and seed tube correctly.
- ✓ Candidates gave a very good proportional sketch of the genital tract of a hen correctly.
- ✓ Almost all the candidates have good ideas of the extension services, loan scheme and government subsidy.
- ✓ Candidates were able to list the various forms in which grass is used for animal feed correctly.
- ✓ Candidates gave good definition of weathering of rock and enumerated the process of soil formation very well.
- ✓ The candidates presented a well proportional labeled diagram of a disc plough and correctly stated the maintenance procedures to be carried on a disc plough.

Candidates' Weakness

- ✕ Candidates failed to give correct answer on welding torch, welding nozzles or tip aid automatic pressure regulations.

Suggestions for Improvement

- ❖ Student should inculcate the habit of self-reading by visiting the library and internet for more information and ideas.
- ❖ The instructors should take reading and learning activities as they are expected to be taken.
- ❖ Government should see technical and vocational education as the BED Rock of National Development and borrow a leaf from successful neighboring countries.
- ❖ Government should procure training materials for the students.
- ❖ Government should be lay more emphasis on capacity building.

TRACTOR SYSTEM (012-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- a. Write short notes on:
 - i. Injector nozzles
 - ii. Nozzle differential ratio
 - iii. Electro- hydraulic nozzle
- b. List three functions of injector nozzle
- c. What is the function of dowels in injector nozzles?

Intended Task

The candidates were expected to write short notes on Injector nozzles, Nozzle differential ratio and Electro- hydraulic nozzle. They were also expected to list three functions of injector nozzle and dowels in injector nozzles. Candidates performed well.

Question 2

State two functions of the following tractor components:

- i. Dip stick
- ii. Front weight
- iii. Quadrant lever
- iv. Foot throttle

Intended Task

The candidates were required to state two functions each of these tractor components: Dip stick, Front weight, Quadrant lever and Foot throttle. Candidates performed averagely.

Question 3

- a. Explain the remedies in diesel tractor engine when the engine gets heated up.
- b. Outline the essential components of a tractor.
- c. Explain what happens when petrol engine is used as diesel engine.

Intended Task

The candidates were expected to explain the remedies in diesel tractor engine when the engine gets heated up. They were also required to outline the essential component of a tractor and explain what happens when petrol engine is used as diesel engine. Candidates performed averagely.

Question 4

- a. What do you mean by transmission system of a tractor?
- b. What are the functions of the transmission system?

Intended Task

The candidates were expected to explain transmission system of a tractor and state the functions of transmission system. Candidates performed well.

Question 5

- a. Use a labeled diagram only to explain the working principles of an oil bath air cleaner
- b. Explain the significance of governor in automobile
- c. What is the range of engine efficiency in case of two stroke engine?

Intended Task

The candidates were expected to explain the working principles of an oil bath air cleaner with a labeled diagram and explain the significance of governor in automobiles. They were also expected to state the range of engine efficiency in a two stroke engine. Candidates performed well.

Question 6

- a. State one function of the following tractor components:
 - i. Draw bar
 - ii. Tyre lug
 - iii. Shut-off knob
 - iv. Tractometer
- b. Draw a typical piston of an agricultural tractor and label five parts.

Intended Task

The question tested the candidates' ability to state the functions of these tractor components: draw bar, tyre lug, shut-off knob and tractometer. They were also expected to draw a typical piston of an agriculture tractor and label five parts. Candidates performed fairly.

Question 7

- a. List five safety precautions in a tractor workshop and their uses.
- b. What is traction?
- c. Using a labeled sketch, explain the working principles of a splash lubricating system.

Intended Task

The candidates were expected to list five precautions in a tractor workshop and their uses. Also they were asked to define traction and explain with diagram the working principles of a splash lubricating system. Candidates performed fairly.

Candidates' Strengths

- ✓ Candidates performed averagely on traction components, dip stick, front weight, quadrant lever and foot throttle.
- ✓ Candidates answered question on transmission system of a tractor correctly.
- ✓ Candidates answered question on the significance of governor in automobile correctly.

Candidates' Weakness

- ✕ Poor grammatical expression

Suggestion for Improvement

Candidates should try to read newspaper, journals and magazines

MOTOR VEHICLE MECHANICS WORKS (021)

General Comments on the Paper

The question covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

- (a) List five routine checks to be carried out daily on a motor vehicle.
- (b) List three symptoms of an overcharge battery.
- (c) Sketch a connecting rod and label two parts.

Intended task

The candidates were expected to list five routine checks to be carried out daily on a motor vehicle, three symptoms of an over charged battery and sketch a connection rod and label two parts. Candidates who answer this question were able to answer it correctly. Candidates performed well.

Question 2

- (a) Explain the following fuel oil terms.
 - (i) Viscosity.
 - (ii) Flash point
 - (iii) Cetane rating.
 - (iv) Octane rating.
- (b) Sketch an instrument use to measure the specific gravity of a battery.

Intended task

Candidates were expected to explain the following fuel oil terms, viscosity, flash point, cetane rating, octane rating and sketch an instrument used to measure the specific gravity of a battery. Candidates performed well.

Question 3

- (a) Draw a layout of atypical disk brake.
- (b) Label three parts.
- (c) Explain the sequential procedure for bleeding brake system.

Intended task

Candidates were expected to draw a layout of a typical disk brake, label three parts and explain the sequential procedure for bleeding the brake system. Candidates performed poorly.

Question 4

- (a) Define :
 - (i) Phasing
 - (ii) Calibrator.
- (b) List two components S.I. engine that are not C.I. engine.
- (c) With simple sketches, differentiate between direct and indirect combustion chamber shapes.

Intended task

Candidates were expected to define phasing, calibration, list two components on S.I. engine that are not C.I. engine and to differentiate between direct and indirect combustion chamber shape with simple sketches. Candidates performed averagely.

Question 5

- (a) Briefly describe the purpose of a gear box inter locking devices.
- (b) Give two possible causes of the following gear box faults.
 - (i) Oil leaks from the gear box
 - (ii) Gear box noisy in gear
 - (iii) Difficulty in engaging the gear.
- (c) State the type of oil used in gear box.

Intended task

Candidates were expected to describe the purpose of a gear box interlocking devices, give two cause of the following gear box faults: oil leaks from the gear box, gear box noisy in gear, difficulty in engaging the gear and state the type of oil in gear box. Candidates performed well.

Question 6

- (a) Give two reasons why multi-drive axles are used on commercial vehicles.
- (b) With simple sketches, differentiate between overslung and underslung multi-drive axles.
- (c) State two reasons why it is preferable to employ two or more propeller shafts on longer vehicles.

Intended task

Candidates were expected to state reasons why multi-drive axles are used on commercial vehicles and differentiate with simple sketches between overslung and underslung multi-drive axles. They were also asked to state two reasons why it is preferable to employ two or more propeller shafts on longer vehicles. Candidates performed well.

Question 7

- (a) List two types of rear axle casing.
- (b) Draw a differential unit and label four parts.
- (c) State types of spanners that are commonly used in the motor vehicle workshop.

Intended task

Candidates were expected to list two types of rear axle casing. They were also requested to draw a differential unit, label four parts and also state types of spanners that are commonly used in the motor vehicle workshop. Candidates performed well.

Candidates' Strengths

- ✓ Good grammatical expression.
- ✓ Good logical presentation of terms.

Candidates' Weakness

- ✗ Poor grammatical skills.

Suggestions for Improvement

- ❖ Teacher should endeavour to teach the students how to draw good diagram.
- ❖ Technical drawing should be employed to assist in teaching the students.

AUTOMOBILE ELECTRICAL WORKS (031-1)

General comments on the paper:

The questions covered the syllabus and the candidates' performance was general good.

Detailed comments on each question:

Question 1

- (a) What special precautions must be taken when diluting electrolyte for use in a lead-acid battery?
- (b) Why should only distilled water be used for topping up the battery?

Intended task

The question tested the candidates' ability to state the precautions to be taken when diluting electrolyte for use in a lead-acid battery and reasons why only distilled water is used for topping up the battery.

The candidates were expected to state the precautions as:

- (a) The preparation in a well-ventilated room.
- (b) Use of porcelain bowl.
- (c) Adding acid gently to distilled water.
- (d) Stirring gently during the preparation.
- (e) Wearing of rubber gloves.
- (f) Opening of windows for gases to go out. They omitted all these facts while in question (1b) most candidates failed to realize that distilled water is used to top-up battery because of its purity and cleanliness. Candidates performed fairly.

Question 2

- (a) Draw and label a test lamp.
- (b) Describe an electric horn of the vibrating diaphragm type and explain how it operates.

Intended task

The question tested the candidates drawing skills and to describe an electric horn of the vibrating diaphragm type as well as explain its operation. They were expected to describe an electric horn of the vibrating diaphragm as

- (i) When horn changes in magnetic field it causes vibration of diaphragm
- (ii) Contact points open and close as diaphragm moves.
- (iii) When the current passes through a pair of magnetic field, it causes a diaphragm to vibrate. Candidates performed averagely.

Question 3

- (a) What material is used for the following parts of a lead-acid battery:
- (i) Case?
 - (ii) Stopper?
 - (iii) Separator between plates?
 - (iv) Framework of the plates?
- (b) Name the main parts of a spark plug and state the materials from which they are made of.

Intended task

The candidates were asked to state the materials used for these parts of a lead-acid battery: case, stopper, separator between plates and framework of the plates. They were also requested to name the main parts of a spark plug and state the material from which they are made. They were to state the materials for question 1a as:

- (a) Hardened plastic rubber used for case,
(b) Wooden sheets used for separation between plates
(c) Hard-rubber case used for frame work of the plates. While they were to respond to question (3b) as:
(a) Resistor- Aluminum steel, she-mid steel;
(b) Centre Electrode- Nickel Alloy;
(c) Earth- Electrode-Nickel Alloy and
(d) washer-copper.

Candidates performed fairly.

Question 4

State the functions of the following components and draw their electrical symbols:

- (i) Lamp
- (ii) Fuse
- (iii) Battery 12v
- (iv) Capacitor
- (v) Earth

Intended task

The question tested candidates' ability to state the functions and draw the electrical symbol of lamp, fuse, battery 12v, capacitor and earth.

They were expected to respond as:

- (i) Lamp – it illuminates the surrounding
- (ii) Fuse – a safety device that protects electrical wiring from the effect of excess current
- (iii) Battery – supplier of voltage to the primary winding of a motor vehicle
- (iv) Capacitor – the electrical components capable of storing electrical charge. Many that attempted this question but omitted the correct answer. Candidates performed poorly.

Question 5

- (i) List two probable causes and the remedies for the following battery faults: Plates with excessive sulphated
- (ii) Overcharged battery
- (iii) Battery undercharge
- (a) Define electromotive force (EMF) and potential difference (PD).

Intended task

Candidates were expected to list two probable causes and remedies of these battery faults: Plates with excessive sulphated, Overcharged battery, Battery undercharge and also to define electromotive force (EMF) and potential difference (PD). They were able to list two probable causes and the remedies for the battery faults but could not define electromotive force as a force from the battery or generator that causes a flow of electricity around a circuit, potential difference as the voltage measured when the battery is supplying to an outside source. Candidates performed poorly.

Question 6

- (a) Sketch a cut-out and label its parts.
- (b) State one of its functions.

Intended task

The question required the candidates to sketch a cut-out, label its parts and state one of its functions. Candidates were expected to state that the function of the cut-out is to control the amount of charge the battery receives while the sketching task was fairly done. Candidates performed averagely.

Question 7

- (a) Describe cooling system and state two of its functions in automobile.
- (b) Give four advantages and four disadvantages of
 - (i) Air cooling system.
 - (ii) Water cooling system

Intended task

The question requested candidates to describe cooling system in automobile and state two of its functions. They were also to give four advantages and four disadvantages of air and water cooling system. Candidates performed averagely.

Candidates' Strengths

- ✓ Many candidates displayed professional skills in answering questions.
- ✓ There is marked improvement on language use by candidates.

Candidates' Weaknesses

- ✕ Poor drawing skills
- ✕ Poor computational skills
- ✕ Many candidates were poor in expressing their answers on paper especially in question 7.

Suggestions for improvement

- ❖ Candidates need to improve themselves generally by intensifying efforts in reading.
- ❖ The teaching of drawing should be improved upon by the teachers.
- ❖ Basic grammatical work can help the students in no small way; hence the teaching of this should be encouraged in schools.
- ❖ Relevant books and other instructional materials should be made available to schools.

ELECTRICAL INSTALLATION AND MAINTENANCE WORKS (041-1)

General Comments on the Paper

The question covered the syllabus and candidates' performance was generally fair.

Details comments on Each Questions

Question 1

With a neat diagram, draw three point of light control by three switches. Indicate your supply intake through a single-phase fuse control.

Intended task

The candidates were required to draw a neat diagram showing three point of light controlled by three switches and indicate supply intake through a single-phase fuse control. Candidates performed poorly.

Question 2

- (a) Define ducting.
- (b) State three types of ducting and explain one of them.
- (c) Define space factor.
- (d) List two advantages of ducting.

Intended task

The candidates were expected to define ducting, state three types of ducting and explain one of them. They were to define space factor and list two advantages of ducting. Candidates performed fairly.

Question 3

- (a) State two reasons for protecting electrical installation.
- (b) Define the following as in relation to fuse:
 - (i) Fusing current.
 - (ii) Fusing factor.
 - (iii) Current rating.

Intended task

The question tested candidates' ability to give the meaning of the following abbreviations and list five test instruments used in underground installation. Candidates performed well.

Question 4

- (a) Give the meaning of the following abbreviations:
 - (i) PVC
 - (ii) TRC
 - (iii) PCP
 - (iv) VIR
 - (v) MIMS
- (b) List five test instruments used in underground installation.

Intended task

The question tested the candidates' ability to give the meaning of these abbreviations PVC, TRC, PCP, VIR, MIMS and to list five test instruments used in underground installation. Candidates performed well.

Question 5

- (a) State two IEE regulations with respect to accessibility of joints
- (b) With a good diagram describe the five procedures for making a tee-joint.
- (c) State three types of joint used.

Intended task

Candidates were expected to state two IEE regulations with respect to accessibility of joints, draw a good diagram, describe the five procedures for making a tee-joint and state where this type of joint is used. Candidates performed well.

Question 6

- (a) Why are sealing boxes necessary when terminating paper insulated cable?
- (b) Make sketch showing a section through a termination of a PILCS cable.

Intended task

The question tested the candidates' knowledge on why sealing boxes are necessary when terminating paper installation cable and to make showing a section through a termination of a PILCS cable. Candidates performed fairly.

Question 7

- (a) Explain the term "winding of electrical machine".
- (b) List the two main types of winding.
- (c) Sketch the two main types of winding and state where each should be used.

Intended task

Candidates were expected to explain the term winding of electrical machine and to list the two main types of winding. They were to sketch the two main types of winding and state where each should be used. Candidates performed fairly.

Question 8

- (a) State the functions of the following:
 - (i) Mallet
 - (ii) Hacksaw
 - (iii) Glowler
 - (iv) Tachometer
 - (v) Micrometer
 - (vi) Scissors
- (b) List two statutory regulations regarding setting of winding machine.

Intended task

The question tested the candidates' ability to state the functions of the following: Mallet, Hacksaw, Glowler, Tachometer, Micrometer and Scissors. They were to list two statutory regulations regarding setting of winding machine. Candidates performed fairly.

Question 9

- (a) Explain the functions of a bearing in machine.
- (b) List two sign of a worn bearing.
- (c) List two types of brushes and give two advantages of each.

Intended task

The candidates were expected to explain the function of a bearing in machine, list two sign of a worn bearing, two types of brushes and give two advantages of each. Candidates performed poorly.

Candidates' Strengths

- ✓ The candidates were able to correctly list types of ducting correctly and gave explanation one of them.
- ✓ The candidates answer question 3 and 4 correctly.
- ✓ The candidates answer question 5 correctly.
- ✓ Good drawing skills.

Candidates' Weaknesses

- ✕ The candidates were deficient in sketching the cross sectional view of PILCS cable.
- ✕ The candidates could not define winding correctly
- ✕ The candidates find it difficult to state the regulation for setting winding of machine.
- ✕ Candidates could not list two types of brushes used in machines.

Suggestions for Improvement

- ❖ Emphasis should be place on monitoring in order to check examination malpractices/irregularities.
- ❖ Emphasis should be laid on public enlightenment on the importance of NABTEB examinations.
- ❖ Workshop/seminars should be organised for students, teachers and principal on NABTEB examinations.
- ❖ Teacher should show more commitment to students and endeavour to cover all aspect of the syllabus before examination.
- ❖ Student should show more commitment to their studies.

FABRICATION AND WELDING (051-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each Question

Question 1

- (a) Sketch the following stakes and state their uses:
 - (i) Funnel
 - (ii) Hatchet
 - (iii) Creasing iron.
- (b) State three differences between soft and hard soldering.

Intended Task

The candidates were expected to sketch the following funnel, Hatchet, creasing iron and state their uses and three differences between soft and soldering. Candidates performed fairly.

Question 2

- (a) Define any three of the following mechanical properties of metals:
 - (i) Tensile strength
 - (ii) Malleability
 - (iii) Elasticity
 - (iv) Hardness.
- (b) State Hooke's law of elasticity.
- (c) List any three types of stress.

Intended Task

The question tested the candidates' ability to recall the definition of three of the following mechanical properties of metals: Tensile strength, Malleability, Elasticity and Hardness. They were also to state Hooke's law of elasticity and to list any three types of stress. Candidates performed fairly.

Question 3

- (a) Draw neatly, an oxy-acetylene welding plant and label any five of its parts.
- (b) State four safety precautions to be observed in a gas welding shop.

Intended Task

The candidates were expected to draw an oxy-acetylene welding plant, label five parts and state four safety precautions to be observed in a gas welding shop. Candidates performed fairly.

Question 4

- (a) State three important functions of a gas welding regulator.
- (b) Define the following terms:
 - (i) Flashback
 - (ii) Back firing
- (c) State the major differences a low pressure welding torch and a high pressure welding torch.

Intended Task

The candidates were expected to state three important functions of a gas welding regulator. They were also expected to define the terms flash back, back firing; state the difference between a low-pressure welding torch and high welding torch. Candidates performed fairly.

Question 5

- (a) What is welding defects?
- (b) Mention four welding defects and state two means of preventing each of them.
- (c) What is destructive test?

Intended Task

The candidates were expected to define welding defects, mention four welding defects and state two means of preventing each of them. There were also to define destructive test. Candidates performed fairly.

Question 6

- (a) State two reasons why electrode holder is made of insulating material.
- (b) State three merits of a direct current (d.c) welding machine over an alternating current (a.c) welding machine.
- (c) List two processes of electrodes coating.

Intended Task

The candidates were expected to state two reasons why electrode holder is made of an insulating material, state three merit of a direct current (d.c) welding machine over an alternative current (a.c) welding machine. The candidates were also required to list two processes of electrode coating. Candidates performed fairly.

Question 7

- (a) List three types of materials from which templates are made.
- (b) Why is good welding joint difficult to achieve in overhead welding position?
- (c) Neatly sketch the sectional representation of the following forms of weld:
 - (i) Fillet
 - (ii) Single v butt
 - (iii) Double bevel butt.

Intended Task

The candidates were expected to list three types of material from which template are made, recall why good welding joint is difficult to achieve in overhead welding position and neatly sketch the sectional representation of these forms of weld; Fillet, Single v butt, Double bevel butt. Candidates performed fairly.

Candidates' Strengths

- ✓ Good presentation of answers.
- ✓ They had a fair knowledge of the subject

Candidates' Weaknesses

- ✗ Poor sketching/ drawing
- ✗ Poor grammatical expression and spelling skills

Suggestions for Improvement

- ❖ Assignments involving sketching and drawings should always be given to students.
- ❖ Candidates should always read newspaper , magazines and journals to improve their English language

VEHICLE BODY BUILDING (091-1)

General Comment on the Paper

The questions covered the syllabus and candidates' performance was generally on the average.

Detailed Comment on Each Question

Question 1

- a. What are the differences between employee and employer in an industrial organization?
- b. List and explain four sources of accident in vehicle body building workshop.

Intended Task

The candidates were expected to explain the differences between employee and employer in an industrial organization and four sources of accident in vehicle body building workshop. Candidates performed well.

Question 2

List six trimming materials and their functions.

Intended Task

The question tested candidates' ability to list six trimming materials and their functions. Candidates performed well.

Question 3

- a. Define paint and painting?
- b. State and describe general reasons for painting a vehicle body.

Intended Task

The questions tasked candidates' ability to define paint, painting and describe general reasons for painting a vehicle body. Candidates performed well.

Question 4

- a. What is an alloy?
- b. Differentiate between ferrous and non-ferrous materials, give four examples each.

Intended Task

Candidates were expected to explain an alloy and differentiate between ferrous and non-ferrous materials. Candidates performed poorly.

Question 5

Draw to specification sections as it is applicable to the following:

- i. Pillar
- ii. Waist-rail
- iii. Connection between the platform
- iv. Connection of chassis to longitudinal runner

Intended Task

The candidates were expected to draw to specification sections as it is applicable to pillar, waist-rail, connection between the platform and connection of chassis to longitudinal runner. Candidates performed poorly

Question 6

List and describe four methods of increasing strength and rigidity of various body panels and frames.

Intended Task

The question required candidates ability to list and describe four methods of increasing strength and rigidity of various body panels and frames. Candidates performed poorly

Question 7

- a. Draw and label four hand tools commonly used in a vehicle body building workshop.
- b. State the uses of the four tools mentioned in 7(a) above.

Intended Task

Candidates were expected to draw and label four hand tools commonly used in a vehicle body building workshop and their uses. Candidates performed poorly.

Candidates' Strengths

- ✓ Candidates answered question on differences between employee and employer in an industrial organization correctly
- ✓ Candidates answered question on sources of accident in vehicle body building workshop correctly.
- ✓ Candidates answered question on trimming materials and their functions correctly.

Candidates' Weaknesses

- ✕ Poor drawing skills
- ✕ Candidates performed poorly in questions 5 and 6

Suggestions for Improvement

- ❖ Trade drawing should be introduced as one of the departmental subjects to complement engineering drawing subject.
- ❖ Emphasis should be laid on grammatical expression.

INSTRUMENT MECHANICS WORKS (111-1)

General comment on the paper

The questions covered the syllabus and candidates' performance was generally good.

Detailed comments on each question:

Question 1

- (a) State two human safety precautions.
- (b) Name two pressure measuring instrument.
- (c) (i) Define level and its unit.
(ii) Define speed, frequency with their units

Intended Task

The question required the candidates to state two human safety precautions and two pressure measuring instrument. Also, they were required to define level and its unit as well as speed frequency with their units. Candidates performed fairly.

Question 2

Draw a well labeled diagram of cathode ray oscilloscope and explain it operation.

Intended Task

The candidates were expected to draw a well labeled diagram of cathode ray oscilloscope and explain its operation. The candidates answered the question and draw well labeled diagram. Candidates performed averagely.

Question 3

- (a) Explain the following errors:
 - (i) Zero error
 - (ii) Parallax error
- (b) Draw a well labeled diagram of resistance thermometer and its operation.

Intended Task

The candidates were required to explain zero error and Parallax error. They were also to draw a well labeled diagram of resistance thermometer and its operation. Many candidates gave fair definition while few did not define the terms as required. Candidates performed fairly.

Question 4

- (a) What is a wattmeter?
- (b) Draw and explain its operation.
- (c) Define frequency and its unit.

Intended Task

The question tested candidates' knowledge on wattmeter. They were required to draw and explain the operation of wattmeter as well as define frequency and its unit. Some candidates were able to explain wattmeter but draw poorly. Candidates performed poorly.

Question 5

- (a) Draw a well labeled tachometer.
- (b) Explain its operation.

Intended Task

The candidates were required to draw a well labeled tachometer and explain its operation. The candidates did not draw the instrument correctly; while their attempt to give explanation of its operation was poorly presented. Candidates performed poorly.

Question 6

- (a) Define the following:
 - (i) Relay
 - (ii) Amplifier
 - (iii) Converter
 - (iv) Speed
- (b) Explain the following terms:
 - (i) Alkalinity
 - (ii) Acidity
 - (iii) Neutral
- (c) Explain the function turbidity meter.

Intended Task

The candidates were required to define Relay, Amplifier, Converter and Speed. They were also to explain Alkalinity, Acidity and Neutral as well as to explain the function of turbidity meter. Candidates performed fairly.

Question 7

- (a) Explain the functions of a grinder.
- (b) State the three types of grinding.
- (c) State the safety precaution for hand when grinding.
- (d) State one advantage and one disadvantage of centreless grinder.

Intended Task

The question tested candidates' knowledge of a grinder, explain its functions and to state three types of grinding. They were also to state the safety precautions for hand when grinding, give one advantage and one disadvantage of centreless grinder. Candidates performed poorly.

Candidates' Strengths

- ✓ Some candidates defined correctly.
- ✓ They attempt some questions correctly
- ✓ The operation was treated properly by the student.

Candidates' Weaknesses

- ✗ The candidates need to know better on how to measure instrument.
- ✗ The candidates lack of knowledge on the mechanical aspect
- ✗ Poor drawing skills
- ✗ poor handwriting

Suggestions for Improvement

- ❖ Teachers should be encouraged to always use past question papers in the class to improve the candidates' knowledge on the subject.
- ❖ The candidates should be taught on proper drawing pattern regularly.
- ❖ They should always have weekly test on selected topics.
- ❖ They should also be involved in extra mural lessons.

FOUNDRY CRAFT PRACTICE (131-1)

General Comments on the paper

The questions covered the syllabus and the candidates' performance was fair.

Question 1

What are the most common accidents occurring in the

- (a) Moulding area of the foundry
- (b) Pattern shop

Intended Task

Candidates were expected to state the accidents occurring in the moulding area of the foundry and pattern shop. Candidates performed fairly.

Question 2

Explain the uses of the following safety clothings in the foundry.

- (a) Respirator
- (b) Safety glasses

Intended Task

The question tested candidates' knowledge on the uses of respirator and safety glasses as the safety clothings in the foundry. Candidates performed fairly.

Question 3

State the uses of the following hand moulding tools

- (a) Flat rammer
- (b) Bellows
- (c) Cleaner
- (d) Trowel

Intended Task

Candidates were expected to state the uses of the following hand moulding tools: Flat rammer, Bellows, Cleaner and Trowel. Candidates performed well.

Question 4

Distinguish between jobbing and captive foundry shops.

Intended Task

The candidates were expected to state the difference between jobbing and captive foundry shops. Candidates failed to give examples of each of the foundries. Candidates performed averagely.

Question 5

Differentiate between

- (a) Pattern and core box
- (b) Mould and core?

Intended Task

The candidates were expected to differentiate between pattern and core box, mould and core. Candidates performed well.

Question 6

What would be the advantage of a metal mould compared to the one made with sand?

Intended Task

The question tested candidates' ability to state the advantage of a metal mould over the one made with sand. Candidates performed poorly.

Question 7

- (a) Name the furnace that are appropriate for the melting of the following metals and alloys
 - (i) Cast iron
 - (ii) Alloy
 - (iii) Aluminium alloy
 - (iv) Copper base alloy
- (b) Give the possible fuel or means of heat used by each of the furnaces mentioned in (a) above.

Intended Task

Candidates were expected to name the furnaces that are appropriate for the melting of these metals and alloys: Cast iron, Alloy, Aluminium alloy and Copper base alloy. They were also to state the possible fuel or means of heat used by each of the furnaces mentioned. Candidates performed well.

Candidates' Strength

- ✓ The candidates answered the questions correctly.

Candidates' Weaknesses

- ✕ Inability to give example of jobbing and captive foundry shops.
- ✕ Inability to identify the main advantage of metal over tools sand mould.
- ✕ Deficient in the aspects of safety regulation in the foundry industry.

Suggestions for Improvement

- ❖ Attachment of foundry students to foundry industry is very necessary.
- ❖ Tools and equipment to be provided in schools for better understanding.

MARINE ENGINEERING CRAFT (151-1)

General Comments on the paper:

The questions covered the syllabus and the candidates' performance was generally average.

Question 1

- (a) i. List four sources, and four properties of water.
ii. List four sources of impurities and contaminants of water.
- (b) Outline the principles that govern the installation of direct and indirect domestic cold and hot water supply systems.
- (c) What are the materials used for water tanks and reservoirs?

Intended Task

The candidates were expected to list four sources and properties of water, four sources of impurities and contaminants of water. They were equally required to outline the principles that govern the installation of direct and indirect domestic cold and hot water supply systems. Lastly, state the materials used for tanks and reservoirs. Candidates performed well.

Question 2

- (a) i. Outline sources of hazards and safety precautions that are involved in petroleum product storage.
ii. What is liquid petroleum gas (L.P.G.)?
- (b) write short notes on a typical steam generator, under the following headings:
 - i. Principles
 - ii. Functions
 - iii. Constructional features

Intended Task

Candidates were expected to outline the sources of hazards and safety precautions that are involved in petroleum product storage and to explain what liquid petroleum gas (L.P.G.) is. They were also to write short notes on a typical steam generator on Principles, Functions and Constructional features. Candidates performed well.

Question 3

- (a) Enumerate three advantages and disadvantages each of controllable pitch propellers.
- (b) Name and describe the various parts that make up a controllable -pitch propellers.
- (c) Sketch the arrangement of pilgrim-type nuts tightened to a hydraulic pump.

Intended Task

The candidates were expected to enumerate three advantages and disadvantage each of controllable pitch propellers. The advantages are: (i) high propulsion efficiency (ii) optimizing spud and bollard pull performance (iii) better maneuverability (iv) it has more efficient use of diesel engine. They were to name and describe the various parts that make up a controllable-pitch propeller as well as to sketch the arrangement of pilgrims-type nuts tightened to a hydraulic pump. Candidates did not attempt this question at all.

Question 4

- (a) Outline four initial starts up procedures for a typical governor.
- (b) With the aid of sketches, write short notes on the mode of operation of the type of governor considered in 4(a).
- (c) Internal governor maintenance is not recommended, but advisable to replace the governor, why?

Intended Task

The candidates were expected to outline four initial starts up procedures for a typical governor and with the aid of sketches, write short notes on the mode of operation of the type of governor considered in 4(a). They were to explain why required internal governor maintenance is not recommended, but is advisable to replace it. Candidates performed very well.

Question 5

- (a) Sketch and label a diagrammatic layout of dry sump lubrication system.
- (b) List four causes of excessive oil consumption of an engine.
- (c) Differentiate between dry-sump and wet-sump systems of lubrication.

Intended Task

The candidates were expected to sketch and label a diagrammatic layout of a dry-sump lubrication system, list four causes of excessive oil consumption of engine. Which are: (i) leak at the drain plug (ii) crack in the crank case (iii) too high a level in the sump (iv) Incorrect grade of lubricant. Candidates did not attempt this question at all.

Question 6

- (i) Explain the term safety precaution in a workshop.
- (ii) Write short notes on each of the following sources of accident in a workshop and how to curtail them:
 - i. Associated with rotating machines.
 - ii. Danger from fire and fumes.
 - iii. Compresses air.
 - iv. Electrical components and cables.

Intended Task

The candidates were required to explain the term safety precaution in workshop and write short notes on each of these sources of accidents in a workshop and how to curtail them: Associated with rotating machines, Danger from fire and fumes, Compresses air and Electrical components and cables.

Candidates performed well.

Question 7

- (a) Outline four basic requirements for proper maintenance of a battery.
- (b) List two indications of a battery in the following conditions:
 - i. Battery in a low state of charge
 - ii. Battery over charged
- (c) Sketch and label a diagram of a high rate discharge testing machine.

Intended Task

The candidates were expected to outline four basic requirements for proper maintenance of a battery and list two indications of a battery in the following conditions: Battery in a low state of charge and Battery over charged

They were further required to sketch and label a diagram of a high rate discharge testing machine. Candidates performed well.

Candidates' Strengths

- ✓ Good interpretation of the questions
- ✓ Ability to answer correctly question on listing of item.

Candidates' Weaknesses

- ✕ Poor grammatical expressions
- ✕ Illegible handwriting.
- ✕ Inability to answer questions on controllable-pitch propeller, hydraulic pump, dry and wet sump lubrication systems.

Suggestions for Improvement

- ❖ Candidates needs to be encouraged to buy textbooks on marine Eng. Craft practice as this will help them to perform better on both internal and external examinations.
- ❖ Training and excursion should be organized for staff and candidates for better performance.

COMPUTER CRAFT STUDIES (171 - 1)

General Comments on the Paper

The question covered the syllabus and the candidate's performance was generally fair.

Detail comments on Each Question

Question 1

- (a) What is a computer virus?
- (b) Define the following:
 - (i) Boot virus
 - (ii) Programme virus
 - (iii) Stealth virus
- (c) State five measures that can be taken against virus.

Intended task

The question tested the candidates' knowledge of computer virus, types of computer virus and measures that can be taken against virus. Candidates failed to define boot virus, programme virus and failed to state the measures that could be taken against virus. Candidates performed fairly.

Question 2

Complete the table

Generation	Age of Technology	Basic element component	Programming Language employed	Examples
First	1940-1950		Machine language	
Second		Transistors		
Third		Integrated Circuits LS1		IBM360/370
Fourth			High-level language: PASCAL	
Fifth	1980-till date		Rebots:SHAKEY, PUMA HELPMATE	

Intended task

The question required candidates to complete the table. Candidates omitted vacuum tubes, unvac, atlas and karnel language query. Candidates performed fairly.

Question 3

- (a) Define internet.
- (b) List five types of browsers.
- (c) State five benefit of internet.
- (d) Name and explain two categories of chatting.

Intended task

The candidates were expected to define internet, mention five types of browsers and state five benefit of internet. Candidates were also expected to name and explain two categories of chatting. Candidates failed to mention a global collection of computer sharing resources. Candidates performed fairly.

Question 4

- (a) What are values?
- (b) State five features of the first generation computer.
- (c) State steps involved in order to avoid lost of information in RAM.

Intended task

Candidates were expected to define values, state five features of the first generation computer and the steps involved in order to avoid lost of information in RAM. Candidates performed fairly.

Question 5

- (a) In Auto CAD, what is an object?
- (b) Give five examples of objects in Auto CAD.
- (c) If an object is erased by mistake, how can it be restored?

Intended task

The question required candidates to define an object with examples as it relates to Auto CAD and to explain how an object can be restored if erased by mistake. Candidates failed to define what an object is in Auto CAD. Candidates performed fairly.

Question 6

Explain the following terms

- i. Chip
- ii. Microprocessor
- iii. Mother board
- iv. Processor.

Intended task

The candidates were expected to explain these terms Chip, Microprocessor, Mother board and Processor. Candidates failed to mention point like semiconductor (silicon) and logic chip. Candidates performed fairly.

Question 7

- (a) Distinguish between hardware and software components of a computer.
- (b) List five output devices and discuss two of them.
- (c) Sketch a wall labelled block diagram of a computer system.

Intended task

The candidates were expected to differentiate between hardware and software component of a computer. They were to list five output devices and discuss two of them, also to sketch a wall labelled block diagram of a computer system. Candidates omitted point like microfilm, control, arithmetic and auxiliary storage. Candidates performed fairly.

Candidates' Strengths

- ✓ Candidates were able to define computer virus and stealth virus.
- ✓ Candidates were able to define internet, list the types of browsers and state some benefits of internets.
- ✓ Candidates answer question (five) 5 correctly
- ✓ Candidates were able to answer the question on vacuum tube, microprocessor, high level language, unvac 1950-1960, 1960-1970.
- ✓ Candidates were able to explain the differences between hardware and software components of a computer.

Candidates' weaknesses

- ✗ Candidates were unable to define programme virus.
- ✗ Candidates were unable to state the example of the various computer generations.
- ✗ Candidates were unable to explain what is valve is.
- ✗ Candidates were unable to define on object as it relates to Auto CAD.
- ✗ Candidates were unable to explain motherboard.

Suggestions for Improvement

- ❖ Candidates should devote more time to their academics.
- ❖ Government should invest more funds and resources into technical education.

ANIMAL HUSBANDRY (181)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each question

Question 1

- (a) Name four breeds of rabbit.
- (b) Describe briefly the management of rabbits under the following heading:
 - (i) Housing
 - (ii) Feeding
 - (iii) Hygiene

Intended task

The candidates were expected to list four breeds of rabbits and describe briefly the management of rabbits under these heading; Housing, feeding, Hygiene. Candidates performed averagely.

Question 2

- (a) List four breeds of goats.
- (b) State four reason of rearing goats.
- (c) List three common diseases of goat.

Intended task

The question required candidates to list four breeds of goats and state four reasons of rearing goats. Candidates performed well.

Question 3

List three poultry equipment and state the main use of each.

Intended task

The candidates were expected to list six poultry equipment and state their uses. Candidates performed fairly.

Question 4

- (a) Name four breeds of pigs.
- (b) Write short notes on
 - (i) Extensive system.
 - (ii) Intensive system of rearing pigs.

Intended task

Candidates were expected to list four breeds of pigs, write short notes on extensive and intensive system of rearing pigs. Candidates performed averagely.

Question 5

- (a) State
 - (i) Three advantages and
 - (ii) Three disadvantages of the deep-litter house.
- (b) Mention one disadvantages of using saw dust as filter in a deep-litter house.
- (c) State two other methods of keeping poultry.

Intended task

The candidates were required to state three disadvantages of the deep-litter house and mention one disadvantages of using saw dust as filter in a deep-litter house. Candidates performed averagely.

Question 6

- (a) Name four breeds of cattle that can be found in Nigeria.
- (b) State six general characteristics of cattle.

Intended task

The candidates were required to name four breeds of cattle that can be found in Nigeria and state six general characteristics of cattle. Candidates performed well.

Question 7

- (a) What is brooding?
- (b) State eight management practices involved in raising chicks from day old to six weeks of age.

Intended task

The question required candidates to explain brooding and state eight management practices involved in raising chicks from day old to six weeks of age. Most candidates who attempted this question performed averagely.

Candidate's Strength

- ✓ Candidates demonstrated good knowledge on the subject.

Candidates' Weakness

- ✕ Lack of grammatical expression.

Suggestions for Improvement

- ❖ Recommended text book should be read by the student.
- ❖ Teacher should endeavour to cover syllabus.

GENERAL MENTAL WORKS (191)

General Comments on the Paper

The question covered the syllabus and the candidate's performance was generally fair.

Details Comment on Each Question

Question 1

- (a) Explain the following drilling operations:
 - (i) Drilling
 - (ii) Boring
 - (iii) Counter boring
- (b) State two possible causes of drilling breakage.
- (c) Differentiate between drill and drilling.

Intended task

The candidates were required to explain these drilling operations: Drilling, Boring, Counter boring and state two possible causes of drilling breakage as well as to differentiate between drill and drilling. Candidates performed well.

Question 2

- (a) State two advantages of the four jaw chuck over the three jaw chuck.
- (b) List four methods of taper turning on the lathe
- (c) Explain when a fixed steady is used on the lathe.

Intended task

The candidates were expected to state two advantages of jaw chuck over the three jaw chuck and list four methods of taper turning on the lathe as well as to explain when a fixed steady is used on the lathe. Candidates performed well.

Question 3

- (a) Define
 - (i) Normalizing.
 - (ii) Annealing.
- (b) Differentiate between hardening and case hardening.
- (c) Illustrate the process of tempering

Intended task

The question required candidates to define Normalizing, Annealing and differentiate between hardening and case hardening and illustrate the process of tempering. Candidates who attempted this question performed averagely.

Question 4

- (a) Give three safety precautions to be observed during arc welding.
- (b) Why is flux used during welding?
- (c) List and explain three types of welding flames.

Intended task

The candidates were required to explain safety precautions to be observed during arc welding and why flux is used during welding. They also expected to list and explain three types of welding flames. Candidates' performed fairly.

Question 5

- (a) List four types of cast iron.
- (b) What are the elements fed into the furnace for the production of pig iron?
- (c) Explain the following:
 - (i) An alloy
 - (ii) A base metal.

Intended task

Candidates were expected to list four types of cast iron and also, to explain an alloy with a base metal. The question also tasked the candidates to state the elements fed into the furnace for the production of pig iron. Candidates performed averagely.

Question 6

- (a) List four temporary joints
- (b) Explain the difference between a temporary joint and a permanent joint.
- (c) With a neat sketch, show two types of temporary joints.

Intended task

The candidates were expected to list four temporary joints, explain the difference between a temporary joint and a permanent joint as well as with a neat sketch show two types of temporary joints. Candidates performed well.

Question 7

- (a) List four forging tools.
- (b) Define the following.
 - (i) Up setting
 - (ii) Drawing down
 - (iii) Swaging
- (c) With a neat sketch, show the Anvil and Indicate:
 - (i) The beak
 - (ii) The face.

Intended task

The question required the candidates to list four forging tools and also defines up setting, drawing down and Swaging. They were to show with a neat sketch the Anvil and Indicate: the beak and the face. Candidates performed averagely.

Candidates' Weaknesses

- ✕ Lack of grammatical expression
- ✕ Lack of computational skills
- ✕ Poor sketching techniques.

Suggestions for Improvement

- ❖ Emphasis should be laid on sketching by teachers.
- ❖ School should be equipped with recommended text books.

GENERAL WOOD WORK (192)

General Comment on the Paper

The question covered the syllabus and the candidates' performance was generally fair.

Detailed Comment on Each Question

Question 1

Explain the following glue terms:

- (i) Cramping time
- (ii) Setting time
- (iii) Shelf time.
- (iv) Pot life
- (v) Assembly line.

Intended task

Candidates were required to state two major operations that can be carried out on a circular saw machine, the use of a push –stick and give two safety rules to observe when using the circular saw. Candidates performed poorly.

Question 2

- (a) State two major operations that can be carried out on a circular saw machine.
- (b) What is the use of a push-stick while using a circular saw?
- (c) Give at least two safety rules to observe when using the circular saw.

Intended task

The question tested the candidates' knowledge of circular saw machine and some safety rules to observe when using the circular saw. Candidates performed fairly.

Question 3

- (a) What is a defect?
- (b) Sketch the following timber defects.
 - (i) Bowing.
 - (ii) Cuping.
 - (iii) Cup shake.
 - (iv) Heart shake.

Intended task

The candidates were expected to define a defect and to sketch these timber defects Bowing , Cuping ,Cup shake and Heart shake. Candidates performed fairly.

Question 4

- (a) State four advantages of plywood over solid wood.
- (b) List three methods of cutting veneers and briefly explain them.

Intended task

The candidates were expected to mention four merits of plywood over solid wood. They were also expected to list and briefly explain some methods of cutting veneers. Candidates performed fairly.

Question 5

- (a) Explain the following terms:
 - (i) Felling.
 - (ii) Shrinkage.
 - (iii) Moisture content.
- (b) Give five reasons for seasonal timber.

Intended task

The candidates were expected to explain the following terminologies. They were also expected to state five reasons for seasonal timber. Candidates performed fairly.

Candidates' Strengths

- ✓ Ability to sketch timber defects.
- ✓ Good knowledge of safety rules to observe when using the circular saw.
- ✓ Good knowledge of advantages of plywood over solid wood.
- ✓ Good grasp of reasons seasoning timber.

Candidates Weaknesses

- ✗ Inability to interpret question correctly.
- ✗ Inability to make correct sketches.
- ✗ Poor grammatical expression.

Suggestions for Improvement

- ❖ Candidates should be taught how to draw and label diagrams.
- ❖ Candidates should endeavour to improve on their grammatical expressions.
- ❖ Candidates should study questions carefully before answering them.

BUILDING/ENGINEERING DRAWING (193-2)

General comments on the paper

The questions covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

Draw an Archimedean spiral given the shortest radius = 10mm, longest radius = 50mm, from the people respectively.

Intended Task

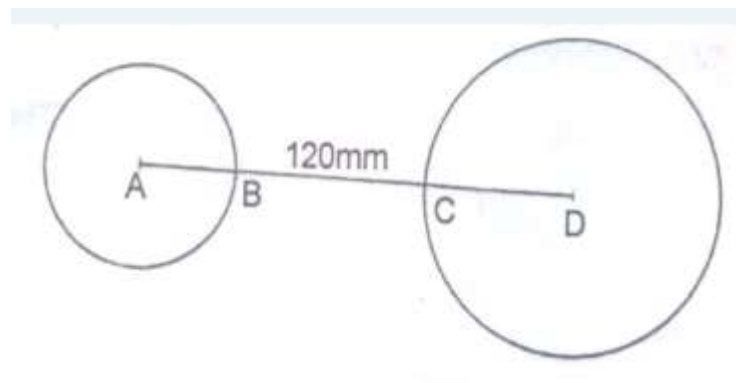
The candidates were expected to draw an Archimedean spiral given the shortest radius. Candidates performed well.

Question 2

Construct an internal tangent to two unequal circles.

AB=20mm

CD=30mm

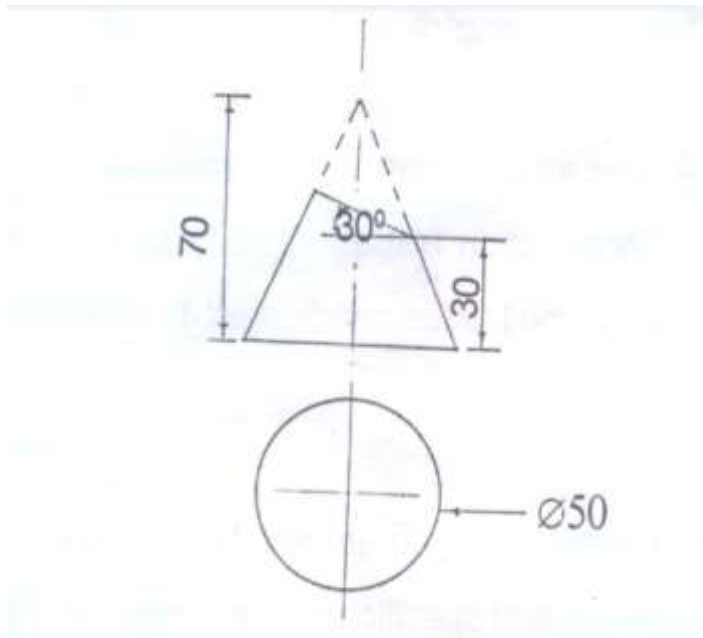


Intended Task

The candidates were expected to construct an internal tangent to two unequal circles. Candidates performed well.

Question 3

An elevation and plan of a frustum of a cone is shown below.



- (i) Draw the given views
- (ii) Draw the development of the frustum of the cone.

Intended Task

The candidates were expected to draw and develop the frustum of the cone. Candidates performed well.

Question 4

Accuracy and good draughtsmanship qualities are essential. Careful layout is also important. All specifications and dimensions are given in millimeters.

The drawing attached shows the floor plan of a residential building. Study the specifications given and answer the questions that follow.

DATA

WALL: All walls are 225 thick sandcrete hollow block with 13 mortar plaster and rendering.

FOUNDATION: 750 width strip foundation at 900 depth from ground level.

DPC: 300 hardcore, 150 thick concrete floor slab above the ground level.

LINTEL: 225x225 reinforced concrete.

HEAD ROOM: 3000

ROOF GABLE: (150 Roof Pitch) with aluminium roofing sheet.

RAFTER: 150X50, Purline 75x50.

EAVE PROJECTION: 600

DOORS AND WINDOWS SCHEDULE

D1 1800X2100

D2 900X2100

W1 600X1200

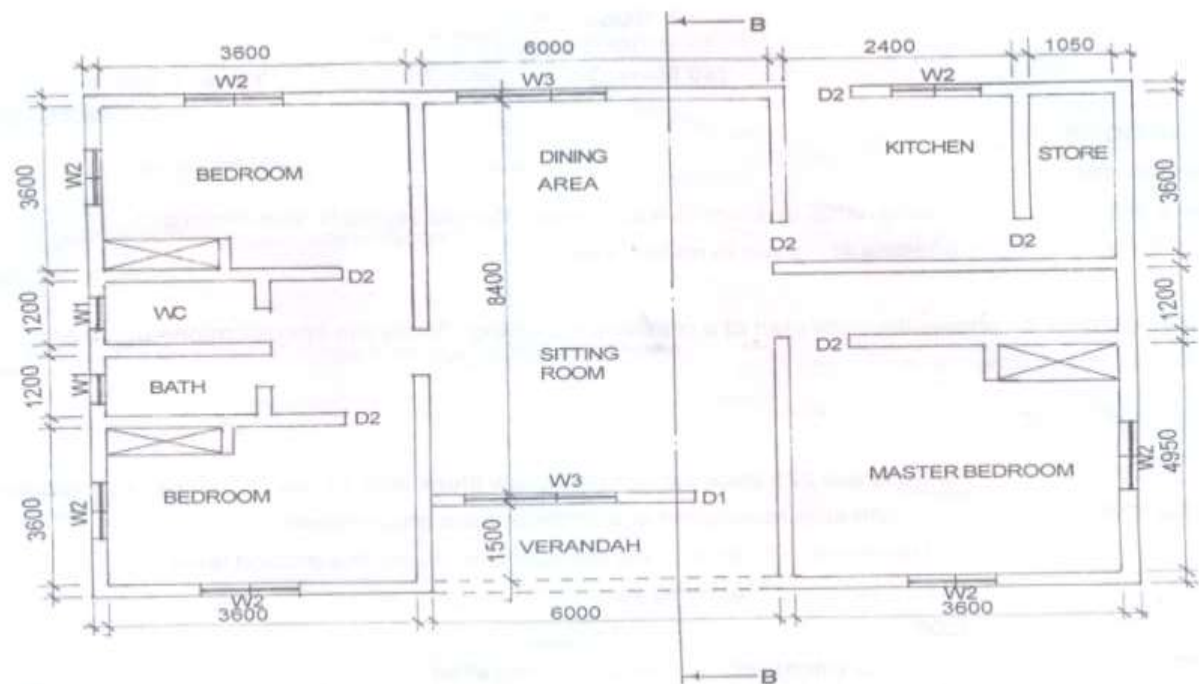
W2 1200X1200

W3 1500X1200

Intended Task

The candidates were required to state the functions of the terminologies listed in the question above. Candidates performed well.

Question 5



Draw to scale

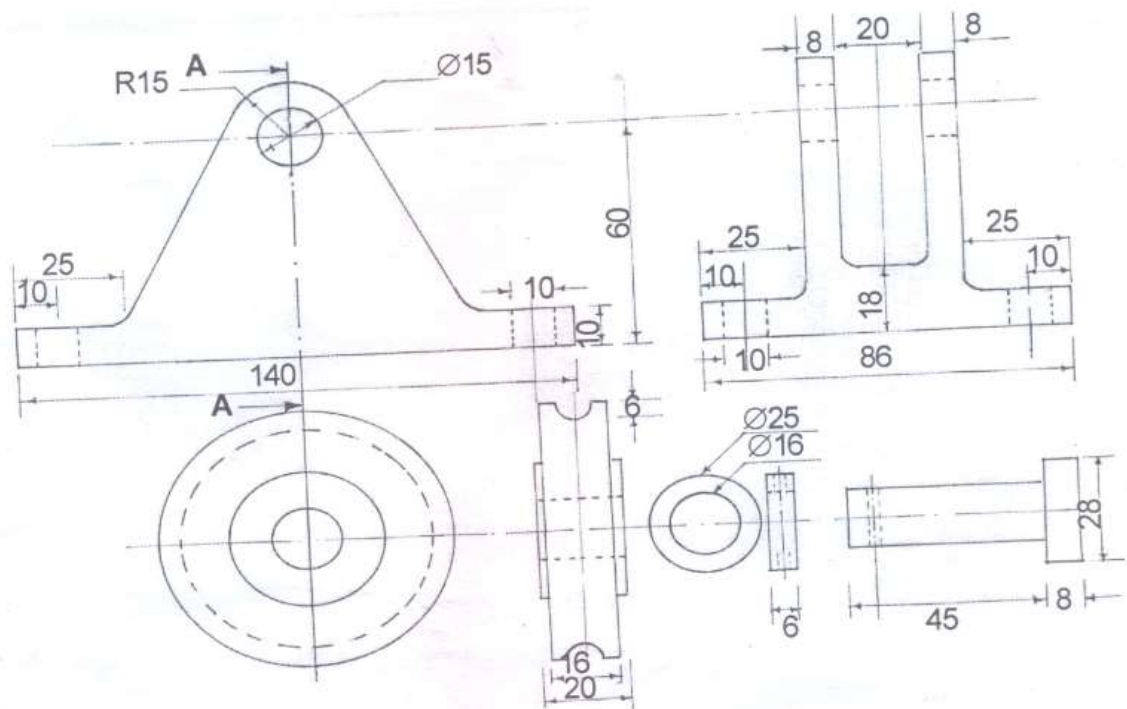
- i. 1:100 THE FLOOR PLAN
- ii. 1:50 A SECTION THROUGH B-B
- iii. 1:100 AN END VIEW FROM THE LEFT HAND SIDE

Intended Task

The candidates were expected to draw to scale, the 1:100 the floor plan, 1:50 a section through B.B, 1:100 an end view from the left hand side. Candidates performed well.

Question 6

Accuracy and good draughtsman ship qualities are essential. Careful layout is also important. All specifications and dimensions are given in millimeters.



Details of a pulley trucket are shown in first angle projection:

(a) Draw the third angle projection an assembled:

- i. Section Elevation A-A
- ii. Plan

(b) Insert six dimensions; three horizontal and vertical ones.

Intended Task

The candidates were expected to draw the third angle projection, sectional elevation AA, and also insert six dimensions, three horizontals and verticals of the chart shown below.

Candidates performed well.

Candidates' Strengths

- ✓ Candidates answered question on the distance OA and OB into equal parts correctly.
- ✓ Candidates answered question on the ability to draw radius (R50) to achieve the normal FB and transferring to AF correctly.
- ✓ Candidates answered question on accurate use of given scales correctly.
- ✓ Candidates answered question on dividing plan and projecting into elevation.

Candidates' Weakness

Suggestion for Improvement

- ❖ Schools should be equipped with modern facilities.
- ❖ The candidates should be encouraged to have reading habits.
- ❖ Locus construction should be properly tight to include Archimedean.
- ❖ Tangency construction should be properly tight and details must be emphasized.

BASIC ELETRICITY (194)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each question

Question 1

(a) Define the following terms:

- (i) Matter
- (ii) Atom
- (iii) Molecule
- (iv) Element

(b) Briefly describe with diagram the structure of a hydrogen atom.

Intended task

The question required the candidates to recall these terms Matter, Atom, Molecule, Element and describe with diagram the structure of a hydrogen atom. Candidates' performed fairly.

Question 2

Name 12 tools used in electrical works and state their uses.

Intended task

The candidates were required to name 12 tools used in electrical works and state their uses. Candidates performed well.

Question 3

(a) State kirchoff's first law.

(b) A circuit consists of two resistors A and B connected in parallel. A has a resistance of 90Ω and B of unknown resistance. The parallel group is connected in series with another resistance C of 70Ω from the current. Calculate the value of B when the supply voltage and the current is 240V and 2.4A respectively.

Intended task

The candidates were expected to state kirchoff's first law and calculate the value of B when the supply voltage and the current is 240V and 2.4A respectively. Candidates performed averagely.

Question 4

- (a) What is a Capacitor?
- (b) List four types of capacitor.
- (c) Describe with the diagram the construction of paper capacitor.

Intended task

The question tested the candidates' ability to define capacitor, list four types of capacitor and also to describe with the diagram the construction of paper capacitor. Candidates performed well.

Question 5

- (a) List three features of an indicating instrument.
- (b) With the aid of a well labelled diagram, explain the operating principal of a moving coil instrument.

Intended task

Candidates were expected to list three features of an indicating instrument and explain the operating principal of a moving coil instrument with the aid of a well labelled diagram. Candidates performed averagely.

Question 6

- (a) In relation to alternating current circuit, briefly explain the following terms:
 - (i) Peak
 - (ii) Average value
 - (iii) Root mean square
- (b) A current consists of a load resistance of 10Ω , a coil of $0.20H$ and a capacitance of $300\mu F$ respectively connected in parallel across a $240V$ $50Hz$ supply. Calculate the
 - (i) Inductive reactance
 - (ii) Capacitive reactance
 - (iii) Impedance
 - (iv) Current across the inductor.

Intended task

The question tasked the candidates' ability to briefly explain these terms in relation to alternating current circuit Peak, Average value and Root mean square. They were asked to calculate Inductive reactance, Capacitive reactance, Impedance, Current across the inductor if a current consists of a load resistance of 10Ω , a coil of $0.20H$ and a capacitance of $300\mu F$ respectively connected in parallel across a $240V$ $50Hz$ supply. Candidates performed averagely.

Question 7

A circuit consists of live heating elements each of 50Ω connected in series across 250V supply. If the supply cable has a total internal resistance of 5Ω , draw the circuit and calculate the

- (i) Total resistance of the circuit
- (ii) Total current
- (iii) Voltage drop by the cable
- (iv) Voltage drop across each current.
- (v) Total power consumed

Intended task

The question tested the candidates' ability to draw the circuit and calculate the Total resistance of the circuit, Total current, Voltage drop by the cable, Voltage drop across each current, Total power consumed, if a circuit consists of live heating elements each of 50Ω connected in series across 250V supply and the supply cable has a total internal resistance of 5Ω . Candidates performed fairly.

Candidates' Strengths

- ✓ Candidates demonstrated good knowledge on pencil work.
- ✓ Candidates had good knowledge on capacitor.

Candidates' Weaknesses

- ✗ Lack of grammatical expression
- ✗ Lack of differentiation between Kirchhoff's first and second law.

Suggestions for Improvement

- ❖ Students should be encouraged to buy text book and materials needed.
- ❖ Schools should be equipped with basic tools and equipment.

INTRODUCING TO BUILDING CONSTRUCTION (211)

General Comments on the Paper

The questions cover the syllabus and the candidates' performance was generally poor.

Detailed Comments on Each Question

Question 1

- a. Define scaffold
- b. Make a neat sketch of the scaffold showing the following parts:
 - i. Toe board.
 - ii. Ledger.
 - iii. Base place.
 - iv. Transom.

Intended Task

The question required candidates to define scaffold showing the following parts: Toe board, ledger, Base place and Transom. Candidates performed poorly.

Question 2

- a. Discuss six factors that can cause accident in the workshop.
- b. State six safety precautions to be taken in the workshop.

Intended Task

The candidates were expected to discuss six factors that can cause accident in the workshop and six how safety precautions could be taken. Candidates performed poorly.

Question 3

- a. State four cutting tools used in the carpentry workshop.
- b. List four types of saws and their functions in the carpentry workshop.

Intended Task

The question required candidates to state four cutting tools used in the carpentry workshop and also to list four types of saws and their functions in the carpentry workshop. Candidates performed poorly.

Question 4

- a. Define the following systems of drainage:
 - i. Separate.
 - iii. Combine.
- b. Give three advantages of site investigation.

Intended Task

Candidates were required to define these systems of drainage namely separate and combine and to further state three advantages of site investigation. Candidates performed poorly.

Question 5

- a. List three methods of leveling and describe one of them in details.
- b. Define the following building terms:
 - i. Sets square.
 - ii. Eye-level.
 - iii. Freezing point.
 - iv. Mosaic.

Intended Task

The question required candidates to list three methods of leveling and give description on one of them. They were expected to define the following building terms; Sets Square, Eye-level, Freezing point and Mosaic. Candidates performed poorly.

Question 6

With very neat sketches, show the differences between a cavity wall and a composite wall.

Intended Task

With a view of a diagram candidates were expected to show the differences between a cavity wall and a composite wall. Candidates performed poorly.

Question 7

- a. Define cladding.
- b. Write short notes on the different types of cladding.

Intended Task

The question tested the candidates' knowledge of cladding and they were expected to write short notes on the different types of cladding. Candidates performed poorly.

Candidates' Weaknesses

- ✕ Poor knowledge of the subject matter.
- ✕ Lack of understanding of the questions.
- ✕ Poor grammatical expression.
- ✕ Poor sketching skills.
- ✕ Poor handwriting.

Suggestion for Improvement

- ❖ Candidates should endeavour to write legibly.
- ❖ Assignments involving sketching and drawing should be given to students
- ❖ They should try to read journals, magazines and newspapers

BRICKLAYING, BLOCKLAYING AND CONCRETING (212-1)

General Comments on the Paper

The questions cover the syllabus and the candidates' performance was generally average.

Detailed Comments on Each Question

Question 1

Explain the following terms:

- a. Grubbing
- b. Hutment
- c. Hoarding
- d. Profiling
- e. Setting out
- f. Site investigation

Intended Task

Candidates were expected to explain the terminologies listed in the questions.
Candidates performed poorly.

Question 2

The floor of a sitting room measuring 5m long x 3.5m wide is to be finished with thermoplastic tiles measuring 225mm x 225mm. Calculate:

- i. Number of tiles needed allowing 10% of damages.
- ii. The cost of doing the job if the cost of laying 1m² of tiles is N350.

Intended Task

The candidates were expected to calculate the number of tiles needed for the floor of a sitting room measuring 5m long x 3.5m wide if is to be finished with thermoplastic tiles measuring 225mm x 225mm allowing 10% of damages. Also, to calculate the cost of doing the job if the cost of laying 1m² of tiles is N350.00
Candidates performed well.

Question 3

- a. Describe in details the slump test on concrete.
- b. Explain three possible outcome or result of 3(a) above.

Intended Task

The question explored candidates ability to describe in details the slump test on concrete and also explain the possible outcome or result of the test. Candidates performed poorly.

Question 4

Neatly sketch the following tools/equipment used in building construction:

- i. Spade
- ii. Digger
- iii. Wheelbarrow
- iv. Dumper

Intended Task

Candidates were required to sketch the tools/equipment used in building construction: Spade, Digger, Wheel barrow and Dumper. Candidates performed averagely.

Question 5

A total of 2000 blocks made up of sizes 100mm, 150mm and 225mm were supplied to a site in the ratio 1: 3: 6 respectively. Calculate

- a) The number of each size supplied
- b) The total cost of the blocks if each 100mm size cost N85.00, 150mm type costs N115.00 and the 225mm cost N145.00.

Intended Task

Candidates were required to calculate the number of each size supplied and the total cost of the blocks if each 100mm size costs N85.00, 150mm type costs N115.00 & 225mm cost N145.00. Candidates performed well.

Question 6

- a. List four types of special cement.
- b. What is the difference between an admixture and an additive?
- c. Explain why grading of aggregate for concrete work is necessary.

Intended Task

The question required candidates to list four types of special cement. They were asked to differentiate between admixtures from that of additive and also to explain why grading of aggregate for concrete work is necessary. Candidates performed averagely.

Question 7

- a. State two reasons for timbering the sides of trenches.
- b. With a neat sketch, explain how to batter the sides of a trench.

Intended Task

The candidates were required to state two reasons for timbering the sides of trenches; they were expected to make a neat sketch explaining how to batter the side of a trench. Candidates performed poorly.

Candidates' Strengths

- ✓ Ability to arrange the mathematical solution to the question sequentially.
- ✓ Ability to make correct sketch of the tools and equipment used in building.
- ✓ Candidates were able to identify special contents.
- ✓ Candidates were able to differentiate what admixtures and additives are used for in concrete.

Candidates' Weaknesses

- ✗ Candidates were deficient in knowledge and use of English language.
- ✗ Candidates were deficient in the use of sketches to express ideas.
- ✗ Inability to answer question on procedure for slump test correctly.
- ✗ Inability to answer question on timber to trench and alternative of battering to trenches correctly.

Suggestion for Improvements

- ❖ Reading of newspapers, magazines and textbooks.
- ❖ Assignments involving sketches and drawings should be given to candidates regularly as time permit.

CARPENTRY/JOINERY (221)

General comments on the paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments of Each Question

Question 1

- (a) In the timber of an upper floor, the following members are required. Sketch to show their arrangements.
- (i) Bridging joist
 - (ii) Herring bone strutting
 - (iii) Trimmer joist
 - (iv) Trimmed joist
 - (v) Trimming joist
- (b) Sketch the connection between a trimming and trimmer joist.

Intended Task

The question tasked the candidates to sketch to show the arrangements of the members in the timber floor of an upper floor: Bridging joist, Herring bone strutting, Trimmer joist, Trimmed joist, trimming joist. They were also required to sketch the connection between trimming and trimmer joist. Many candidates omitted points and were not able to sketch. Candidates performed poorly.

Question 2

- (a) Sketch a metal jack plane and identify the following parts:
- (i) Blade
 - (ii) Handle
 - (iii) Adjustable nut
 - (iv) Lever cap
 - (v) Knob
- (b) Sketch the following hand tools and state their uses:
- (i) Bradawl
 - (ii) Gimlit

Intended Task

The candidates were required to sketch the metal jack plane and identify these parts: Blade, Handle, Adjustable nut, Lever cap and Knob. They were equally expected to sketch these hand tools and state their uses: Bradawl and Gimlit. Sketching took most of the time allotted to them. Candidates performed fairly.

Question 3

- (a) State the difference between screen and partition
- (b) Illustrate a simple partition with a diagram and label any four parts.
- (c) State the function of the parts labeled

Intended Task

The candidates were expected to state the difference between screen and partition, illustrate a simple partition with a diagram and label any four parts. They were equally required to state the function of the parts labeled. Candidates performed well.

Question 4

- (a) Classify the following hand tools in their various group:
 - (i) Mallet
 - (ii) Parallel clamp
 - (iii) Sliding bevel
 - (iv) Hammer
- (b) State the uses of any two in 4 (a) above.
- (c) Draw a mortise chisel and name the parts.

Intended task

The candidates were required to classify these hand tools in their group: Mallet, Parallel clamp, Sliding bevel and Hammer.

They were also expected to state the uses of any two of the hand tools and to draw a mortise chisel and name the parts. The expected answers were:

Mallet - percussion and impeating tools.

Parallel Clamp - holding and supporting tools.

Sliding Bevel - Geometrical tools. Candidates performed well.

Question 5

With the aid of a sketch explain a suitable centre for a segmental arch, indicating both close and open lagging.

Intended Task

The candidates were expected to explain with the aid of a sketch a suitable centre for a segmented arch, indicating both close and open lagging. The drawing of segmental arch which indicate close and open lagging was well answered. Candidates performed well.

Question 6

- (a) Define seasoning of timber.
- (b) Draw the section across a wall and door lining to show arrangements of members.

Intended Task

Candidates were required to define seasoning of timber, draw the section across a wall and door lining to show arrangement of members. Candidates performed well.

Candidates' Strength

- ✓ The candidates did well in questions 4 to 6

Candidates' weaknesses

- ✗ The candidates found it difficult to answer some questions
- ✗ Poor sketching and drawing skills

Suggestions for Improvement

- ❖ Teachers / students should endeavour to make use of relevant text books
- ❖ Qualified teachers should be employed to encourage and teach free hand drawing at schools.
- ❖ Teachers are expected to teach the students both theory and practicals

FURNITURE MAKING (231-1)

General Comments on the paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each Question

Question 1

Explain briefly the following properties of timber:

- a. Moisture content
- b. Elasticity
- c. Hardness
- d. Durability.

Intended Task

The candidates were expected to explain these properties of timber Moisture content, Elasticity, Hardness and Durability. Candidates performed fairly.

Question 2

- a. Identify four uses of widening joints.
- b. State four advantages of slot screwed widening joint.

Intended Task

The candidates were required to identify four uses of widening joints and to state four advantages of slot screwed widening joint. Candidates performed fairly.

Question 3

- a. List four types of finishes applied to cabinet timber.
- b. State four basic steps which they may be required for finishing cabinet timber.

Intended Task

The candidates were expected to list four types of finishes applied to cabinet timber and four basic steps which may be required for finishing cabinet timber. Candidates performed fairly.

Question 4

- a. Name three common screws.
- b. Sketch one of them.

Intended Task

The question tested the candidates' ability to recall the name of three common screws and candidates were expected to draw one of them. The candidates performed fairly.

Question 5

- a. Make a free hand sketch of a ratchet brace.
- b. State five parts.

Intended Task

Candidates were expected to make a free hand sketch of a ratchet brace and state five of its parts. Candidates performed fairly.

Candidates' Strength

- ✓ Good presentation of answers.

Candidates' Weaknesses

- ✕ Poor drawing/ sketching
- ✕ Poor handwriting.

Suggestions for Improvement

- ❖ Principals and instructors should emphasize the importance of drawing.
- ❖ Principals and instructors to attend conferences/ workshop to improve the quality of teaching and learning.

MACHINE WOOD WORKING (241-1)

General Comments on the Paper

The questions covered the syllabus and candidates' performance was generally fair.

Detailed comments on each question

Question 1

- (a) What is seasoning of timber?
- (b) Mention any two types of seasoning methods you know.
- (c) State any four reasons why timber should be seasoned

Intended Task

Candidates' were required to define seasoning of timber, mention any two types of seasoning methods and to state any four reasons why timber should be seasoned. Candidates performed well.

Question 2

- (a) Mention four groups of wood working tools, and give three examples of each group.
- (b) What do you understand by the term safety rules?
- (c) State four safety rules that should be observed in the workshop.

Intended Task

The candidates were expected to mention four groups of wood working tools and give three examples of each group. They were also to explain safety rules and state four safety rules that should be observed in the workshop. Candidates performed fairly.

Question 3

Discuss the characteristic features of hard wood and soft wood and name five types of wood each that falls into these groups.

Intended Task

The candidates were expected to discuss the characteristics features of hard wood and soft wood and to name five types of wood each that falls into the two categories. Candidates performed fairly.

Question 4

With sketches show the differences between the following man-made boards:
3- Ply plywood, laminated board and battened board.

Intended Task

The candidates were expected to show with sketches the differences between the following man-made boards: 3- ply plywood, laminated board and battened board. Candidates performed fairly.

Question 5

- (a) Why are machines necessary in woodwork industry?
- (b) Mention two types of cutter heads used on mortising machine.

Intended Task

The candidates were required to explain why machines are necessary in the woodwork industry and to mention two types of cutter heads used on mortising machine. Candidates performed fairly.

Question 6

List the names and describe the function of each of the eight essential parts of the circular saw.

Intended Task

The candidates were expected to list the names and describe the function of each of the eight essential parts of the circular saw. Candidates performed fairly.

Candidates' Strengths

- ✓ Good understanding of the questions.
- ✓ Good computational skills.
- ✓ Good drawing/presentation skills.

Candidates' Weaknesses

- ✗ The candidates could not give detailed answers to the questions.
- ✗ Poor grammatical expression.

Suggestions for Improvement

- ❖ Candidates should be taught drawing before seating for the examination.
- ❖ More questions should be machine woodwork based.

PAINTING AND DECORATING (251)

General Comments on The paper

The question covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each Question

Question 1

- (a) Define solvent spattering.
- (b) List five materials required in obtaining the effect defined in (1a) above.
- (c) Outline eight procedures involved in obtaining solvent spattering.

Intended task

Candidates were expected to define solvent spattering, list five materials required in obtaining the effect of solvent spattering, and outline eight procedures involved in obtaining solvent spattering. Candidates who attempted this question do not know the difference between materials, tool and equipment. Candidates performed fairly.

Question 2

- (a) What is arcing in spray painting?
- (b) Describe the cause of this defect painting work.
- (c) List five steps the effect in (2a) above can be avoided in spraying painting operation.

Intended task

Candidates were expected to explain arcing in spray painting, describe the cause of this defect painting work and list five steps the effect of arcing in spray painting work can be avoided in spraying painting operation. Candidates could not understand arcing in spray painting; hence they could not list how the effect could be avoided. Candidates performed poorly.

Question 3

- (a) What is a spraying gun?
- (b) Draw neatly a gravity spray gun and label four parts.
- (c) Describe any two parts labelled in (3b) above.

Intended task

The candidates were expected to define spray gun, draw neatly a gravity spray gun and label four parts. They were also asked to describe any two parts labelled. Most candidates end up in drawing sanctions feed gun. Candidates performed fairly.

Question 4

- (a) List eight tools used in wall paper hanging.
- (b) Draw neatly any four of the tools in (4a) above.
- (c) Enumerate seven procedures involved in hanging wall paper on a cracked surface.

Intended task

Candidates were expected to list eight and draw four tools used in wall paper hanging. Also they were asked to enumerate seven procedures involved in hanging wall paper on a cracked surface. Some candidates were able to recommend lining paper for crack surface. Candidates performed averagely.

Question 5

- (a) Define concertina folding.
- (b) Explain two reasons why it is used during hanging wall paper.
- (c) List five precautions to be observe when pasting.

Intended task

Candidates were expected to define concertina folding, explain two reasons why it is used during hanging wall paper and list five precautions to be observed when pasting. Candidates performed fairly.

Question 6

- (a) What is glazing work?
- (b) Name three glazing materials used in glazing work.
- (c) Outline eight procedures involved in the re-glazing of broken glass pane on wooding frame.

Intended task

Candidates were expected to explain glazing work and name three glazing materials used in glazing work as well as to outline eight procedures involved in the re-glazing of broken glass pane on wooding frame. Candidates' answer this question manage to get the skills right, candidates performed averagely.

Question 7

- (a) Define Chroma?
- (b) List tools used in colour mixing matching.
- (c) Describe the use of any four of the tools listed in (7a) above.

Intended task

Candidates were expected to define Chroma, list tools used in colour mixing matching and describe the use of any four of the tools listed. Candidates failed to identify tools in mixing/matching of paint, they ended up mentioning equipment e.g. agitators, mixing machine etc. Candidates performed poorly.

Candidates Strengths

- ✓ Ability to define concertina folding correctly.
- ✓ Candidate ability to draw the tools used in wall hanging correctly.

Candidates' Weaknesses

- ✕ Poor grammatical expression.
- ✕ Poor drawing/sketching skills.
- ✕ Difficulties in distinguishing materials.

Suggestion for Improvement

- ❖ Drawing should be taken as a course in the department.
- ❖ Painting text book should be provided in the library of the colleges.
- ❖ Teaching/learning of painting should be improved in the colleges.
- ❖ Qualified teachers should be employed to enable students enjoy smooth learning/teaching with ease.
- ❖ The need for training/retraining of teachers should be emphasized.

PLUMBING AND PIPE-LINE FITTING (261-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on each Question

Question 1

- (a) List six operational sequences of assembling oxy-acetylene equipment.
- (b) Explain the method of joints preparation for bronze welding.
- (c) State the effect of welding different metals together.

Intended Task

The candidates were expected to list six operational sequences of assembling oxy-acetylene equipment, explain the method of joints preparation for bronze welding and state the effect of welding different metals together. Candidates performed well.

Question 2

- (a) With a neat sketch, produce a gas cutting torch and state its principles of application.
- (b) State the functions of a pressure regulator.

Intended Task

The candidates were expected with the aid of a neat sketch to produce a gas cutting torch, state its principle of application and the functions of a pressure regulator. Few candidates were able to draw the gas cutting torch. Candidates performed fairly.

Question 3

- (a) Identify four non-ferrous metals; state their properties and their chemical symbols.
- (b) List four advantages of gas welding.

Intended Task

The question tested the candidates' ability to identify four non-ferrous metals, state their properties and their chemical symbols. They were to list four advantages of a good drainage system. Candidates performed fairly.

Question 4

- (a) Enumerate with the aid of sketches the one pipe system of drainage above ground level.
- (b) State the characteristics of a good drainage system.

Intended Task

The candidates were expected to enumerate with the aid of a diagram the one pipe system of drainage above ground level and state the characteristics of a good drainage system. Candidates performed fairly.

Question 5

- (a) State three main sources of water supply.
- (b) Make a sectional sketch through a direct hot water system.

Intended Task

The candidates were expected to state three main sources of water and make a sectional sketch through a direct hot water system. Candidates performed fairly.

Question 6

- (a) List three advantages and three disadvantages of a centrifugal pump.
- (b) Sketch and explain the working principles of lift and force pump.

Intended Task

The candidates were expected to list three advantages and three disadvantages of a centrifugal pump, sketch and explain the working principles of lift and force pump. Many candidates could not sketch the lift and force pump. Candidates performed fairly.

Candidates' Strengths

- ✓ The candidates were able to list the advantages and disadvantage of a centrifugal pump.
- ✓ The candidates answered the question correctly.

Candidates' Weaknesses

- ✕ Poor drawing skills
- ✕ The candidates were not exposed or had poor practical skill

Suggestions for Improvement

- ❖ More practical should be taught and students should be involved in practical.
- ❖ Students should devote qualitative time to drawings and learn how to make good sketches.

DRAUGHTSMANSHIP CRAFT PRACTICE (271-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally poor.

Detailed Comments on Each Question

Question 1

- a. Explain two components of service drawings.
- b. Name two major professionals involved in the production of service drawings.

Intended Task

Candidates were required to explain two components of service drawings and two major professionals involved in the production of service drawings. Candidates did not know what is meant by components of service drawings and professionals involved in the service drawing. Candidates performed poorly.

Question 2

- a. Ducting is an integral part of water transfer from source to point of use. Explain.
- b. Why are perforated walls provided in soak away chamber of septic tanks?

Intended Task

The question tasked the candidates to explain ducting as an integral part of water transfer from source to point of use. They were also asked to explain why perforated walls are provided in soak away chamber of septic tanks. Candidates performed poorly.

Question 3

- a. State the functions of a structural engineer in building construction processes.
- b. What is gusset plate?

Intended Task

Candidates were required to state the functions of a structural engineer in building construction processes and explain gusset plate. Candidates performed poorly.

Question 4

Write short notes on the following:

- i. Line diagram
- ii. Drawing
- iii. Voltmeter
- iv. 3-dimensional drawing
- v. Fuse

Intended Task

Candidates were requested to write short notes on line diagram, drawing, voltmeter, 3-dimensional drawing and fuse. Candidates performed poorly.

Question 5

- a. What is a site plan? Illustrate with simple sketches.
- b. Name two professionals involved in a plan approval process.

Intended Task

Candidates were required to define a site plan and illustrate with simple sketches. They were also asked to name two professionals involved in plan approval process. Candidates performed fairly.

Candidates Weaknesses

- ✕ Candidates have no knowledge of component of service drawing and professional involved in the service drawing.
- ✕ Candidates do not understand what is duct in water transfer.
- ✕ Candidate could not explain perforated wall in soak away chamber.
- ✕ Candidates could not state the functions of a structural engineer in building construction.
- ✕ Candidates could not explain gusset.
- ✕ Candidates could not define site plan.
- ✕ Poor sketching.

Suggestions for Improvement

- ❖ Candidates need to be more serious in their studies.
- ❖ Candidates should be advised to buy relevant text books and read.
- ❖ Assignments involving drawings and sketching should always be given to them.

LADIES GARMENT MAKING (331-1)

General Comment on the Paper

The question covered the syllabus and the candidates' performance was generally fair.

Detailed Comment on Each Question

Question 1

State any two ways each of identifying the following fabrics when burning test is done:

- i. Linen.
- ii. Silk.
- iii. Cotton.
- iv. Nylon.
- v. Polyester.

Intended Task

The candidates were expected to state any two ways each of identifying linen, silk, cotton, nylon and polyester fabrics when burning test is done. Candidates performed well.

Question 2

- a. State any three guidelines considered when choosing fabric in garment making.
- b. Mention any three garment styles each that are suitable for:
 - i. A tall and slender figure.
 - ii. A short and plump figure.

Intended Task

The question tested candidates' ability to state any three guidelines considered when choosing fabric in garment making. They were also expected to mention any three garment styles each that are suitable for a tall and slender figure, a short and plump figure. Candidates performed fairly.

Question 3

- a. State any four guidelines for choosing a sewing machine?
- b. What six important points must be remembered when operating a sewing machine?

Intended Task

Candidates were expected to state any four guidelines for choosing a sewing machine and six important points to be remembered when operating a sewing machine. Candidates performed well.

Question 4

- a. State any six ways of caring for the sewing machine.
- b. State any four common machine problems and how to solve them.

Intended Task

The candidates were required to state any six ways of caring for the sewing machine, any four common machine problems and also how to solve them. Candidates performed fairly.

Question 5

State three uses of each of the following in garment making:

- i. Darts.
- ii. Tucks.
- iii. Gathers.
- iv. Shirring.
- v. Cross way.

Intended Task

The candidates were expected to state three uses of darts, tucks, gathers, shirring and cross way in garment making. Candidates performed averagely.

Question 6

- a. List and explain five types of sewing needles.
- b. Enumerate five pressing equipment.

Intended Task

The candidates were expected to list and explain five types of sewing needles. They were also expected to enumerate five pressing equipment. Candidates performed fairly.

Question 7

Explain the following terms and illustrate with a sketch:

- i. Bodice.
- ii. On fold.
- iii. Notches.
- iv. Seam allowances.
- v. Straight grains.

Intended Task

The candidates were expected to explain these terminologies with a sketch Bodice, on fold, Notches, Seam allowances and Straight grains. Candidates performed poorly.

Candidates' Strengths

- ✓ Candidates answered question on burning test correctly.
- ✓ Candidates answered question on guideline for choosing a sewing machine correctly.
- ✓ Candidates answered question on the important points to remember when operating a sewing machine.

Candidates' Weaknesses

- ✕ Poor grammatical expression
- ✕ Lack of understanding of the question
- ✕ Poor drawing skills.

Suggestions for Improvement

- ❖ Teachers should lay emphasis on sketches.
- ❖ Teachers should emphasize more on sewing machines.
- ❖ Candidates should learn to answer questions correctly.

CATERING AND CRAFT PRACTICE (341)

General Comments on the Paper

The question covered the syllabus and the candidates' performance was generally good.

Details Comment on Each Question

Question 1

- (a) List ten utensils used in the kitchen and give their uses.
- (b) Name the convenience product made from:
 - (i) White yam
 - (ii) Unripe plantain
 - (iii) Cassava, briefly describe how one of the products mentioned is prepared.

Intended task

The candidates were expected to list ten utensils used in the kitchen and give their uses. The question also tested the candidates' ability to name the convenience product made from white yam, unripe plantain cassava and describe how one of the products mentioned is prepared. Candidates performed averagely.

Question 2

- (a) Briefly explain the following:
 - (i) Boiling
 - (ii) Steaming
 - (iii) Stewing
 - (iv) Grilling
 - (v) Frying
- (b) (i) List five types of soups and five (5) types of sauces.
 - (ii) State the ingredients for making a rich brown cake.
- (c) Give the recipe for sugar paste.

Intended task

The question required the candidates to briefly explain the following: Boiling, Steaming, Stewing, Grilling, Frying, list five types of soups and five types of sauces. They were also to state the ingredients for making a rich brown cake and give the recipe for sugar paste. Candidates' performed fairly.

Question 3

- a. State the uses of these baking ingredients and mention how they should be stored:-
 - (i) Flour
 - (ii) Fat
 - (iii) Sugar
 - (iv) Yeast
 - (v) Used oil
- b. Give four examples of types of bread
- c. State the recipe and method of making Bun dough (basic mixture)

Intended Task

The question required the candidates to state the uses of these baking ingredients flour, fat, sugar, yeast, used oil and mention how they should be stored. They were to give four examples of types of bread, state the recipe and method of making Bun dough (basic mixture) Candidates' performed fairly.

Question 4

- (a) Give the ingredients for making:-
 - (i) Choux paste
 - (ii) Bread roll
 - (iii) Rum baba
- (b) Briefly explain the method of storing bread and biscuits.
- (c) State the procedure for making puff pastry.

Intended Task

The candidates were expected to give the ingredients for making choux paste, bread roll and rum baba, and to explain the method of storing bread and biscuits as well as the procedure for making puff pastry. Candidates performed well.

Question 5

- (a) List ten types of snacks to be found in a snack bar.
- (b) Briefly explain the ten types of mise-en-place to be done in a restaurant.
- (c) List four attributes of a waiter.

Intended Task

Candidates were expected to list ten types of snacks to be found in a snack bar and briefly explain the ten types of mise-en-place to be done in a restaurant with four attributes of a waiter. Candidates performed well.

Question 6

- (a) List five types of raising agents and state their uses.
- (b) State how these items would be stored:
 - (i) Meat
 - (ii) Fish
 - (iii) Leafy vegetables
 - (iv) Root vegetable milk (liquid)
- (c) Give four examples of food borne diseases.

Intended Task

The question required the candidates to list five types of raising agents with their uses and state how these food items meat, fish, leafy, vegetables, root vegetables, milk (liquid) can be stored .they were also asked to give four examples of food borne diseases. Candidates performed well.

Question 7

- (a) Briefly enumerate five (5) duties of the hard waiter.
- (b) Briefly explain the function of the following:
 - (i) Chief de cuisine
 - (ii) Chief de sale
 - (iii) Aboyear
 - (iv) Wine waiter.

Intended task

Candidates were expected to enumerate five duties of the hard waiter and to briefly explain the function of chief de cuisine, chief de sale aboyear and wine waiter. Candidates performed fairly.

Candidates' Strength

- ✓ Candidates demonstrated good knowledge on the subject.

Candidates' weakness

- ✕ Lack of grammatical expression.

Suggestions for Improvement

- ❖ Teacher should teach their syllabus directive.

PRINTING CRAFT PRACTICE (361-1)

General Comment on the Paper

The questioned covered the syllabus and the candidates' performance was generally good.

Detailed Comments on Each Question

Question 1

Describe the principle of the screen printing process.

Intended Task

The question required candidates to describe the principles of the screen printing process. Candidates performed averagely.

Question 2

By means of a labeled diagram only, explain the colour mixture.

Intended Task

The candidates were expected to explain the colour mixture by means of a labeled diagram. Candidates performed poorly.

Question 3

State five advantages of photo composing over mechanical (hot metal) composing.

Intended Task

Candidates were required to state five advantages of photo composing over mechanical (Hot metal) composing. Candidates performed well.

Question 4

Explain briefly the functions of the following in film processing:

- a. Fixer
- b. Water

Intended Task

The candidates were expected to explain briefly the functions of fixer and water in film processing. Candidates performed well.

Question 5

Explain briefly the photo-stencil process of plate making.

Intended Task

The question required candidates to explain briefly the photo-stencil process of plate making. Candidates performed well.

Question 6

State two causes and remedies of sheath lock or jam on the conveyor of a sheath fed offset press.

Intended Task

The candidates were expected to state two causes and remedies of sheath lock or jam on the conveyor of a sheath fed offset press. Candidates performed averagely.

Question 7

With the aid of a diagram describe the saddle stitching method of wire stitching.

Intended Task

Candidates were expected to describe the saddle stitching method of wire stitching with the aid of a diagram. Candidates performed fairly.

Candidates' Strengths

- ✓ Candidates answered question on advantages of photo composing over. Mechanical (Hot metal) composing correctly.
- ✓ Candidates answered question on film processing correctly.
- ✓ Candidates answered question on photo-stencil process of plate making correctly.

Candidates' weaknesses

- ✕ Poor grammatical expression.
- ✕ Poor drawing skills.

Suggestions for Improvement

- ❖ Government should upgrade technical education.
- ❖ Emphasis should be laid on the improvement of Technical Education in Nigeria.
- ❖ Drawing/sketching should be emphasized in schools.

GRAPHIC DESIGN (381-1)

General Comments on the Paper

The questions covered the syllabus and the candidates' performance was generally fair.

Detailed Comments on Each Question

Question 1

- a. What is graphic design?
- b. Mention 10 equipment/tools of graphic design and state their uses.

Intended Task

The question tested the candidates' ability to recall the uses of graphic design. They were also to mention 10 equipments/tools of graphic design and state their uses. Candidates performed averagely.

Question 2

Explain the following:

- a. Perspective
- b. Still-life drawing
- c. Chiaroscuro
- d. Motif

Intended Task

The candidates were expected to explain these terminologies: Perspective, Still-life drawing, Chiaroscuro and Motif. Candidates performed fairly.

Question 3

- a. Explain the word color.
- b. State five classes of colors with examples.

Intended Task

Question tested candidates' knowledge color. Candidates performed fairly.

Question 4

State the principles of art and design. Briefly explain three of the principles.

Intended Task

The question tested the candidates' knowledge of principles of art and design. Candidates performed averagely.

Question 5

Briefly explain the following printing terms:

- a. Binding
- b. Insertion
- c. Signature
- d. Print Finishing

Intended Task

The candidates were expected to explain these printing terms: Binding, Insertion, Signature and Print Finishing. Candidates performed averagely.

Question 6

With a neat diagram, list the components of a set of computer and briefly explain the functions of three of the components.

Intended Task

The candidates were expected to draw and list the components of a set of computer and also explain three functions of its components. Candidates performed fairly.

Question 7

- a. Mention four types of camera.
- b. Briefly explain the functions of two of the cameras.

Intended Task

The candidates were expected to mention four types of camera and also explain the functions of two of the camera. Candidates performed poorly.

Candidates' Strength

- ✓ They had fair knowledge of graphic design

Candidates' Weaknesses

- ✗ Poor knowledge on the topic camera.

Suggestions for Improvement

- ❖ A positive synergy between the teachers and students can enhance candidates' ability in learning.
- ❖ Giving assignments at regular intervals can improve the performance of the students; it is advised that teachers give assignments regularly.

CERAMICS AND DESIGN (391-1)

General comments on the paper

The questions covered the syllabus and the candidate's performance was generally fair.

Detailed Comments on Each Question

Question 1

Briefly explain the formation of igneous rock.

Intended task

The candidates were expected to briefly explain the formation of igneous rock. Candidates performed well.

Question 2

State the differences between insulating bricks and refractory bricks.

Intended task

The candidates were expected to distinguish between insulating and refractory bricks. The candidates failed to mention points like retention of heat, thermal conductivity and the weight of the bricks etc. Candidates performed poorly.

Question 3

List five and explain two stages in making ceramics plaster mould.

Intended task

Candidates were expected to mention five and explain two stages in the making of ceramic plaster mould. Candidates performed fairly.

Question 4

State two difference between the Africa motif and western figures.

Intended task

The candidates were expected to give two differences between the Africa motif and western figures. Candidates performed fairly.

Question 5

Define any two of the following terms:

- (a) Texture.
- (b) Colour.
- (c) Motif.

Intended task

The candidates were expected to define two of the following terms. Candidates performed well.

Candidates' strengths

- ✓ Candidates answer question (1) one correctly.
- ✓ Candidates answer question (5) correctly.

Candidates' Weaknesses

- ✕ Poor grammatical expression.

Suggestion for Improvement

- ❖ Emphasis should be laid on the teaching of English language in school.