

SS TWO

GENERAL MATHEMATICS

1. Read the following topics
 - a. Logarithms and standard form
 - b. Quadratic equations
 - c. Simultaneous Equations (one linear, one quadratic)
 - d. Algebraic fractions
 - e. Linear Inequalities.

- 2a. Use logarithm table to evaluate:
 - i. $\left(\frac{0.00967}{0.07812}\right)^{\frac{1}{2}}$
 - ii. $\sqrt[5]{0.000907}$
 - iii. $\sqrt[4]{287.6^2 - 120.6^2}$

- b. Find the unknown in the following equations:
 - i. $\log_x 216 = 3$
 - ii. $\log_{10} 0.001 = x$
 - iii. $y^3 = \log_{10} 100000000$
 - iv. $k^2 = \log_2 512$

- c. Use logarithm tables to evaluate the following:
If $P = \frac{m \sqrt{2ghT}}{\sqrt{0.03D}}$
where $g = 9.8$, $D = 180$, $m = 3$, $h = 0.834$, $T = 0.265$, find P .

- d.
 - i. Given that $\log_{10} 5 = 0.699$ and $\log_{10} 3 = 0.477$, find $\log_{10} 45$ without using mathematical tables.
 - ii. Hence, solve $x^{0.8265} = 45$

- e.
 - i. Simplify without using Mathematical tables, $\sqrt{\frac{P}{Q}}$
where $P = 3.6 \times 10^{-3}$ and $Q = 2.25 \times 10^6$, leaving your answer in standard form.
 - ii. Given that $\frac{x}{y} = \frac{2}{7}$, evaluate $\frac{7x+y}{x-\frac{1}{7}y}$
 - iii. If $x = \frac{2a+3}{3a-2}$, express $\frac{x-1}{2x+1}$ in terms of a .

- f.
 - i. Simplify $\frac{(x+1)(x-2) - (x-1)(x+4)}{2x-1}$
 - ii. If k is a constant not equal to zero, find the value(s) of x for which the expression

$$\frac{k}{x} + \frac{b}{x-3} + \frac{c}{x(x-3)} \text{ is not defined.}$$

- iii. If x is not equal to any of the values obtained in (ii) above, find the value of k such that $\frac{k}{x} + \frac{2}{x-3} - \frac{6}{x(x-3)} = 0$.

NB: Write all solution in a new exercise book.

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ENGLISH LANGUAGE

- 1a. What is a sentence?
 - b. Give the functional sentence types
 - c. Give the structural sentence types

 - 2a. Give ten idiomatic expressions and use each of them in sentences
 - b. Differentiate with two examples each, Nigerian English and British Standard English

 - 3a. What is a finite and a non finite verb
 - b. Give two examples each.

 - 4a. Differentiate between a phrase and a clause.
 - b. Give the functions of Noun Phrase

 - 5a. What is an informal letter?
 - b. Give five features of an informal letter.
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FURTHER MATHEMATICS

Study carefully the following topics and solve examples in each:

1. COORDINATE GEOMETRY (THE STRAIGHT LINE)
 - * The Cartesian coordinates
 - * Distances between two points
 - * The midpoint of a line segment
 - * Division of a line in a given ratio
 - * Angle between two lines and gradient of a line
 - * Equation of a straight line

2. VECTOR 1

- * Scalars and vectors
- * Addition and subtraction of vectors
- * Multiplication of vectors by a scalar
- * Position vectors
- * Modulus and Unit vector in terms of its components

Answer the following questions:

1. The vertices of a parallelogram PQRS are P (a,7), Q (7,5), R (0,4) and S (6, 2)
 - a. Calculate (i) the gradient of PQ.
- 6-
(ii) the gradient of SR.
(iii) the value of a.
 - b. Find (i) |PR|, correct to 1 d.p.
(ii) the equation of SQ.
2. Find the resultant of the vectors \vec{AC} , $3\vec{BC}$, $3\vec{CD}$, and \vec{DA} .
3. The position vectors of the points A, B, C, D relative to an origin O are respectively a, b, c, and d. Find the following vectors in terms of a, b, c, and d.
i. \vec{AC} ii. \vec{AD} iii. $\vec{AB} + \vec{CA}$ iv. \vec{BC} v. \vec{BD} vi. \vec{CD} vii. $\vec{BC} + \vec{CD}$ viii. $\vec{BC} + \vec{BD}$ ix. $\vec{AC} + \vec{BC}$
4. If $\vec{OP} = \begin{pmatrix} 2 \\ 3 \end{pmatrix}$, $\vec{OQ} = \begin{pmatrix} -4 \\ 5 \end{pmatrix}$, $\vec{OR} = \begin{pmatrix} 7 \\ -1 \end{pmatrix}$, find: i. \vec{QP} ii. \vec{RP} iii. \vec{RQ}

MATHEMATICS 2

Study the following topics carefully:

1. SEQUENCES AND SERIES

- Exponential Sequence (G.P) – nth term
- Sum of terms in a G.P
- Sum to infinity

2. TRIGONOMETRIC RATIOS OF THE GENERAL ANGLE, GRAPH AND IDENTITIES

- Basic trigonometric ratio and its reciprocal ratios
- Trigonometric ratios of the general angle 0° to 360°
- Trigonometric ratios of the special angles
- Trigonometric graph, Identities and equations

ANSWER THESE QUESTIONS

1. Given that 4, 12, x, y, 324, 972, ... is a geometric sequence, find the sum of x and y.

2. Given that $\sin \theta = \frac{8}{17}$, $0^\circ \leq \theta \leq 90^\circ$ find the values of:

a. $\cos \theta$ b. $\frac{\cos \theta - \sin \theta}{\sin^2 \theta}$ c. $\frac{\cos \theta - \sin \theta}{2 \tan \theta}$

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PHYSICS

1. Read vector quantity, vector resolution and vector in I, o and k directions
 - a. Resolve vectors inclined at obtuse and acute angles using cosine and sine rules
2. Read Equilibrium of forces
 - i. State conditions for the equilibrium of coplanar forces
 - ii. Read moment of forces and couple.

N.B Make a short note on each topic listed above and solve some problems to reflect your understanding

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HEMISTRY

- 1a. Read and study carefully, the following topics
 - i. Definition of carbon
 - ii. Allotropes of carbon
 - iii. Destructive distillation of coke
 - iv. Gasification of coke
 - v. Compounds of carbon
 - carbon (iv) oxides
 - carbon (v) oxides
 - Trioxo carbonates iv compounds
- b. Answer the objective questions at the end of the topic using essential chemistry for Senior Secondary schools by I.A. Odesian on A New School Chemistry by Ababio

YORUBA

Daruko orisa ile Yoruba meje pelu ounje okookan won.

FIHERY

1. Study the following topics:
 - a. Fish pond construction and management
 - b. types of fish ponds
 - c. water qualities
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AGRIC SCIENCE

1. Roles of governmental and non – governmental organizations in Agricultural development
 2. Land tenure systems
 3. Land use Acts
 4. Forest management techniques
 5. Agro – forestry
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ECONOMICS

Study the following topics and practice the questions that follow each

1. Meaning of financial institution
 2. Money: Meaning, characteristics and functions
 3. Channels of distribution
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DATA PROCESSING

Read and study the following topic.

1. Web Design Packages
 2. Presentation Package
 3. Graphic packages
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BIOLOGY

Study the following topics

- i. Cell and its environment
- ii. Digestive system and mechanism
- iii. Relevance of Biology in Agriculture

CIVIC EDUCATION

1. Define Naturalization
 2. State the conditions of becoming a citizen in Nigeria
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C.R.K

1. Read “The birth of Jesus Christ and mention two people that played important parts concerning His birth.
 2. Read “The baptism of Jesus” and mention two signs of its baptism.
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ELECTRONICS

With the aid of relevant ebooks, study vigorously the following topics:

1. Basic Electronic Theory
 - Magnet and magnetic field
 - Electromagnetism
 2. Thermionic Devices
 - Electron emission (Photoemission, thermionic emission, electric field emission, secondary emission)
 - Thermionic devices (thermionic diode, triode, tetrode, beam power tube, cathode ray tube)
 3. Semiconductor Devices
 - Types of semiconductor
 - Covalent bonding in semiconductors
 - Extrinsic semiconductors (p-type, n-type)
 - Doping of intrinsic semiconductors
 - Current-voltage characteristic of a p-n diode.
 - Specifications of p-n diodes
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TECHNICAL DRAWING

Study vigorously the following topics:

1. Geometrical Constructions
 - Polygons
 - Scales (plain, diagonal)
 - Enlargement and reduction of figures
 - Equal areas of similar figures
 - Tangents and tangency
 - Special curves (ellipse, parabola, hyperbola, etc)

2. Development of Geometrical solids
 - True lengths
 - Surface development

3. Pictorial Drawing
 - Dimensioning techniques
 - Isometric drawing
 - Oblique drawing
 - Introduction to computer graphics

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GOVERNMENT

Study the following topics and answer relevant question using the school recommended textbook as a guide.

1. Pre – colonial Administration
2. Public Enterprises
3. Civil service
4. Definition of the term Government

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HISTORY

Study the following topics and answer relevant questions using the school recommended textbook as a guide

1. The British annexation of Nigeria
2. First and second phase of the conquer of Nigeria by the British

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CCP

Read food commodities

- i. Food value
- ii. Storage
- iii. Methods and effect of cooking

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HOME MANAGEMENT

Read food purchasing

- i. Factors and guidelines for purchasing food
- ii. Food preservation, meaning and reasons for preserving food.

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LITERATURE

Read and study the following texts:

1. Second Class Citizen by Buchi Enecheta
2. Invisible Man by Ralph Ellison

COMPUTER STUDIES

Study carefully the following topics and solve examples in each:

1. Computer Software
2. Application Software and Operating System Software

