

ST. PETER'S COLLEGE, GARAKU.

2023/2024 ACADEMIC SESSION: SECOND TERM TAKE HOME ASSIGNMENT

CLASS S.S.S. 3 – INSTRUCTIONS-ANSWER ALL QUESTIONS.

GENERAL MATHEMATICS

1. (a) Copy and complete the table of values for $y = \cos x - \sin x$ for $0^\circ \leq x \leq 360^\circ$ leaving the value to 1 decimal place.

X	0°	60°	120°	180°	240°	300°	360°
Y							

(b) Using a scale of 2cm to 60° on the X-axis and 2cm to 1 unit on the Y-axis, draw the graph of $Y = \cos x - \sin x$

2. An aircraft flies due south from an airfield on latitude 36°N , and longitude 138°E , to an airfield on latitude 36°S , and longitude 138°E .

Calculate the distance travelled correct to 3 significant figures.

3. What is the total area of a sphere with radius 3cm? (Take $\pi = \frac{22}{7}$)
4. Find the total surface area of a solid Hemisphere of radius 10cm (Take $\pi = \frac{22}{7}$)

ENGLISH LANGUAGE

1. Write a letter to the Minister of Health and Environment in your country, discussing the causes of the menace of street begging and suggesting solutions to the problem. 450 words. WAEC, 2008, Q3.
2. Read the comprehension passage on p. 33 "I was to remember my first day at Freedom University" and answer its questions.
3. Match the following word-examples of /tʃ/ /dʒ/ /ʃ/ /ʒ/: chief, church, fortune, fracture, pitch, gist, joint, village, badge, chef, nonchalant, mention, champagne, vision, equation, treasure, leisure, visit.

BIOLOGY

1. Draw a well labeled diagram to illustrate mammalian ear
2. Describe these eye defects stating the causes, the condition of someone having it and the correction for the problem. (Diagrams essential)
- (i) Hypermetropia (ii) Myopia (iii) Astigmatism
3. (a) Explain the term: (i) Ecological succession (b) Describe primary succession in an aquatic habitat

PHYSICS

1. What is fibre optics?
2. What are the uses of fibre optics in telecommunication industry.

3. State the uses of NigCOM Sat-1 and NICOMSAT-1

LITERATURE – IN-ENGLISH

African Prose Buchi Emecheta "Second class citizen"

1. Discuss the theme of girl-child education in the text
- (2) Give an account of Adah's cold welcome to London

Non African Prose Ralph Ellison : The invisible man

- (3) With copious reference to the text write on the theme of racial discrimination
- (4) Discuss the character and role of Ras and Exhorter

COMMERCE

1. State the objectives of business. What is social responsibility of business.
2. State and explain the components of 'Marketing Mix'
3. What is consumerism?
4. Write short notes on the following:
- (i) Nationalization (ii) Indigenization (iii) Commercialization (iv) Privatization

ECONOMICS

1. Make a list of ten acronyms of international economic organizations and their meanings stating the year of formation.
2. What is the circular flow of income? Draw a diagram to illustrate it.
3. Explain the relationship amongst Saving, Investment and Consumption.
4. Differentiate between Commercialization and Privatization.

COMPUTER STUDIES

1. a. What is graphic package? b. State five uses of graphic packages.
2. a. Define data representation
- b. Explain four methods of data representation.
3. Define array in BASIC programming III and explain the three operations on Array
4. a. Explain the computer security and ethics
- b. State preventive measures against security breaches.

CHEMISTRY

- (1) state five laboratory uses of sulphuric acid
- (2a). What are the applications of radioactivity
- (2b). Define Radioactivity and state its uses
- (2c) What are hydrocarbons. Give five examples. Each of alkane and Alkene
- (3a). State how you would extract three named iron for it
- (3b) state the Laboratory preparation of a named Alkane
- (3c) write the structural formula of the following
2-methylbutane Trans-1,2-dichloroethene Propanetriol

- 2 Outline three conditions that may inactivate a pathogenic organism (WASSCE June 2002)
- 3 Draw and label the tapeworm (taeniasolium)
- 4 Present a clean life cycle of a liver fluke
- 4.What is ectoparasite?

MATHEMATICS - (EXTERNAL NECO 2023 NO 6)

CIVIC EDUCATION

1. State and explain three types of popular participation
2. Enumerate and explain the need for popular participation in civil society
3. Identify and explain at least four advantages of constitutional democracy

AGRICULTURAL SCIENCE

- 1 a. What is Apiculture? b. Enumerate seven importance of Apiculture.
- 2.State the effects of the following farming practices on the soil:
i. overgrazing ii. Bush burning.
3. Explain selection as an animal improvement process.

GOVERNMENT

- 1a. Discuss Nigeria and the world in relationship to international trade, politics and social development
- 1b. What are the advantages and disadvantages of international relationship
1c. Discuss Nigerian foreign policy since independent
- 2a. Expatriate major factors that promote the formation of non-aligned.
- 2b. Elaborate the major aims and objectives of non-aligned movement
3. Discuss the formation of Africa Union

ENTREPRENEURSHIP - ANIMAL HUSBANDRY

- 1 State the causal organism and three symptoms of each of the following livestock diseases a) brucellosis b) tuberculosis SSCE NOV 1995

- Given the matrix $A = \begin{pmatrix} 3 & 1 & 5 \\ 2 & 3 & 5 \\ 5 & 1 & 6 \end{pmatrix}$ if $\text{Adj}A = \begin{pmatrix} 13 & -1 & -10 \\ 13 & -7 & -5 \\ -13 & 2 & 7 \end{pmatrix}$
- (i) Find A^{-1}
 - (ii) Use the result in (i) to find the values of x, y and z that will satisfy the equations,
$$\begin{aligned} 3x + y + 5z &= 8 \\ 2x + 3y + 5z &= 0 \\ 5x + y + 6z &= 13 \end{aligned}$$
 2. Show the region R which satisfies the set of linear inequalities
$$\begin{aligned} y + x &\leq 3 \\ y + x &\geq 1 \\ y - x &\leq 1 \\ x &\geq 0 \\ y &\geq 0 \end{aligned}$$
 3. Find, from the first principles the derivatives with respect to x of $y = 3x^2$
 4. A pair of fair dice with face numbered 1,2,3,4,5, and 6 is rolled once what is the probability of obtaining at least a sum of six?