



# TOPFLIGHT COLLEGE

JUNIOR & SENIOR SECONDARY SCHOOL

55, YETUNDE BROWN STREET,

IFAKO-GBAGADA, LAGOS STATE.

(08035773899, 08160591190)

## REVISION TOPIC: SET THEORY

FOR: SS1-3

1. (a) The subsets A, B, and C of a universal set are defined as follows:

$$A = \{a, m, p, e\}$$

$$B = \{a, e, i, o, u\}$$

$$C = \{l, m, n, o, p, q, r, s, t, u\}$$

List the elements of the following sets:

i.  $A \cup B$

ii.  $A \cup C$

iii.  $A \cup (B \cap C)$

- (b) Out of the 400 students in the final year in a secondary school, 300 are offering Biology and 190 are offering Chemistry

- i. How many students are offering both Biology and Chemistry, if only 70 students are offering neither Biology nor Chemistry?
- ii. How many students are offering at least one of Biology or Chemistry?

2. In a class of 60 students, 27 speak Hausa, 19 speak Igbo, 28 speak Yoruba and each of the students speaks at least one of these three languages. If 12 speak Hausa and Igbo, 17 speak Hausa and Yoruba and 9 speak Igbo and Yoruba

- a. Draw a Venn diagram to illustrate this information, using  $x$  to represent the number students that speak all three
- b. Calculate the value of  $x$

3. In a certain class, 32 pupils take one or more of Chemistry, Economics and Government. 17 take Economics, 10 take Government and 11 take Chemistry. Nobody takes Economics and Chemistry and 9 pupils take Economics and Government

- a. (i) using set notation and the initial letters of the subjects above, write down the two statements in the last sentence
- (ii) Draw a Venn diagram to illustrate the information
- b. How many pupils take
- (i) Both Chemistry and Government
- (ii) Government only



# TOPFLIGHT COLLEGE

JUNIOR & SENIOR SECONDARY SCHOOL

55, YETUNDE BROWN STREET,  
IFAKO-GBAGADA, LAGOS STATE.

(08035773899, 08160591190)

## ***ROUGH WORK SHEET***

***Instruction:***

- i. Show your workings as neatly as possible.***
- ii. Number your work properly.***