



ESSENCE COLLEGE, KANO

Guda Abdullahi Road, Farm Centre, Kano
Third Term 2023/2024 Academic Session

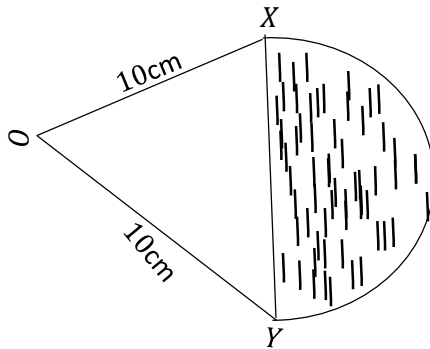
SSS ONE TO TWO

ENGLISH LANGUAGE

1. You are one of the speakers in a debate on the topic: 'Technical schools are more useful to the society than theoretical schools' write your proposition on the topic.
2. Write an article suitable for publication in the National Newspaper on the need of industrial education in Nigeria, its benefits on its citizens and the world at large.
3. Write a story to illustrate the saying: 'Where there is a will, there is a way'.

MATHEMATICS

1. a. An arc subtends an angle of 72° at the circumference of a circle of radius 5cm. calculate the length of the arc in terms of π .
b. Calculate the area of a sector of a circle which subtends an angle of 45° at the centre of a circle of radius 14cm.
c. Calculate the area of the shaded segment of the circle shown in the figure below. [Take $\pi=22/7$]



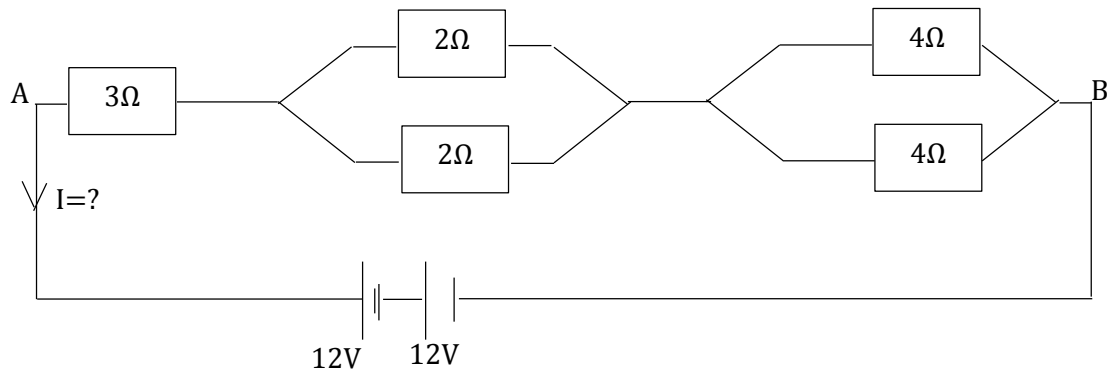
2. a. A 216° sector of a circle of radius 5cm is bent to form a cone. Find the radius of the base of the cone and its velocity angle.
b. A frustum of a pyramid is 3cm square at the top and 6cm square at the bottom and is 5cm high. Calculate the volume of the frustum.
c. An open rectangular box has internal dimensions 2m long, 20cm wide and 22.5cm deep. If the box is made up of wood 2.5cm thick, calculate the volume of the wood in cm^3 .
3. a. Find in terms of π , the curved surface area of a cone with circular base diameter 10cm and height 12cm.
b. A secondary school in Sierra Leone, a census taken regarding the various ethnic groups gives the following results.
Creole 200 Susu 60 Fulah 50 Temne 80 Limba 90 Mende 100 others 140
Represent the information in pie chart.

CHEMISTRY

1. Explain the role of carbon in our daily life activities.
2. State the differences between the two allotropes of carbon.
3. Define allotropy and give three element that exhibit allotropy.

PHYSICS

1. What is a circuit?
2. What is a resistor?
- 3.



In the above circuit, calculate the current flowing through the circuit

BIOLOGY

1. Outline any 10 classification of plant based on agricultural use.
2. List and explain the three classification of plant based on life style.

LITERATURE IN ENGLISH

1. Briefly explain these literary devices.
a. Chiasmus b. Ambiguity c. Allegory d. Synesthesia e. Pathetic fallacy
2. Differentiate between Anglophonic and Francophonic literature.
3. List ten books/novels of Anglophonic and Francophonic origins.

COMMERCE

1. Explain public corporation.
2. State five features of a public corporation.
3. Mention five advantages of a public enterprise.
4. State five disadvantages of a public corporation.