INSTRUCTIONS TO CANDIDATES:

(To be read out by the external invigilator before the start of the examination)

There are 46 questions in this paper. Attempt ALL questions, even if you are not sure of some of the answers.

The Examination is divided into two parts:

PART A: Multiple-Choice Test (Questions 1 to 25)

PART B: Short-Answer Test (Questions 26 to 50)

PART C: Extended Response (Question 46)

The Answer Sheet is part of the Examination Booklet. Take out the middle pages and remove the Answer Sheet by tearing along the perforation. You may use the blank sheet for rough work.

Write your candidate number, your name, school name and province name in the space given on the **Answer Sheet**. The invigilator will tell you what to write.

For each question in **PART A** choose the best answer and write its LETTER in the space given on the **Answer Sheet**.

For each question in **PART B and PART C** work out the answer and write the answer in the space given on the **Answer Sheet**.

If you find a question very difficult, do not spend too much time thinking about it. Leave the question out and go on with the rest of the paper. If you have time at the end, return to the difficult questions and think about them more carefully.

Write your answers in BLUE or BLACK ink (pen or biro).

If you decide to change an answer, make your correction as shown below so that it is clear to the markers what your final answer is. Do NOT use correction fluid on your answer sheet.

X C
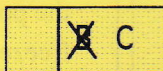
Do NOT use calculators to work out your answers.

Hand in BOTH the Answer Sheet and the papers used for rough work at the end of the examination.

Extra time will NOT be allowed to complete the examination under any circumstances.

DO NOT TURN OVER THE PAGE AND DO NOT WRITE UNTIL YOU ARE TOLD TO START.

PART A: Multiple Choice (Questions 1- 25)

Choose the best alternative for each question and write the letter A or B or C or D in the space provided in the ANSWER SHEET.

QUESTION 1

Which of the following angles are complementary?

A. 20° and 48°   B. 20° and 70°

C. 40° and 60°   D. 50° and 130°

QUESTION 2

Anna runs around a circular field once. The field has a diameter of 210 meters.

What was the distance, in meters, run by Anna?   Use $\pi = \dfrac{22}{7}$

A. 660   B. 440

C. 220   D. 210

QUESTION 3

A school canteen sells 5 boxes of doughnuts each containing 40 doughnuts from Monday to Friday.

How much would the canteen earn if each doughnut was selling at 20t?

A. K20.00   B. K40.00

C. K60.00   D. K80.00

QUESTION 4

Kalakle buys 25 kg bag of rice. Each day his family cooks 800grams of rice.

Approximately, how many days will Kalakle family consume the 25 kg rice?

A. 3   B. 4

C. 25   D. 31

QUESTION 5

The average age of 5 students is 10 years. The age of one student is 6. What is the average age of the remaining 4 students?

A. 4   B. 11

C. 12   D. 16

Questions 6 and 7 refer to the following information

Marks scored by a group of students.

1	8	8	2	3	4	4	5
10	9	6	5	4	3	7	

QUESTION 6

What is the median mark?

A. 1   B. 3

C. 4   D. 5

QUESTION 7

What is the modal mark?

A. 1   B. 3

C. 4   D. 5

QUESTION 8

The temperature in the freezer is −15°C. When the power was off, the temperature inside the freezer rose by 6°C.

What is the new temperature inside the freezer?

A. 24°C   B. 9°C

C. 6°C   D. − 9°C

QUESTION 9

John, Maria and Kiri shared some mangoes in the ratio. 4: 2: 1 respectively.

What fraction of mangoes does Kiri receive?

A. $\frac{1}{7}$

B. $\frac{2}{7}$

C. $\frac{1}{3}$

D. $\frac{4}{7}$

QUESTION 10

$x + 6$
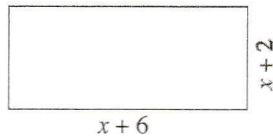
Which of the following is the area of the rectangle?

A. $2(x + 8)$

B. $4(x + 4)$

C. $x^2 + 8x + 12$

D. $x^2 + 12x + 8$

QUESTION 11

The formula, $s = 180(n–2)$ is used to work out the interior angle of shapes; s is the number of interior angles and, n is the number of sides.

Use the formula to calculate the size of an interior angle of an octagon.

A. 1160°

B. 1080°

C. 720°

D. 540°

QUESTION 12

What is the equation used for the table below.

x	4	3	2	1	0	–1
y	5	3	1	–1	–3	–5

A. $y = 2x - 3$

B. $y = 2 - 3x$

C. $y = 2 + 3x$

D. $y = 2x + 3$

QUESTION 13

A farmer uses 6kg of manure to fertilise an area of 48m^2.

How many kilograms of manure will he use for a square meter?

A. 4

B. 6

C. 8

D. 10

QUESTION 14

Find the value of $3y^2 – 6y + 1$, when y = 3.

A. 14

B. 12

C. 10

D. 8

QUESTION 15
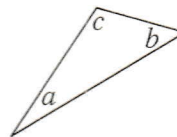
The angles a, b and c, in the triangle are in the ratio of 1: 3: 6 respectively.

Hoe many degrees is angle c?

A. 108

B. 60

C. 58

D. 18

QUESTION 16

Solve $\dfrac{3^2 \times 3^5}{3^4}$

A. 1

B. 3

C. 9

D. 27

Questions 17 and 18 refer to the information below

Dani bought a shirt at 10% discount. The original price was K12.

QUESTION 17

How much did Dani pay for the shirt?

A. K13.20   B. K10.80

C. K10.00   D. K1.20

QUESTION 18

How much was the discount?

A. K10.80   B. K10

C. K2   D. K1.20

QUESTION 19

Factorise; $6p - 2pq$

A. $2(p - 3q)$ B. $2p\,(3q)$

C. $2p(3 - q)$ D. $6(p - 2q)$

QUESTION 20

The perimeter of an isosceles triangle is 40cm. The third side is 4cm longer than each of the equal side.

What is the length of each of the equal sides in centimetres?

A. 18   B. 14

C. 12   D. 9

Questions 21 and 22 refer to the parallelogram below.

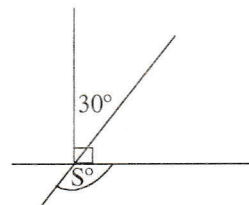The opposite angles are equal.

QUESTION 21

What is the value of x?

A. 10   B. 8

C. 5   D. 4

QUESTION 22

What is the sum of the angle $40 - x$ and $4x$?

A. 64   B. 48

C. 32   D. 20

QUESTION 23

What is the value of the angle S?

A. 120°   B. 90°

C. 60°   D. 40°

Questions 24 and 25 refer to the information below.

Nasain got a loan of K1 000 from Fincorp.

She will repay a total of K1 500.

QUESTION 24

What is the percentage of interest on the loan?

A. 500   B. 150

C. 50   D. 10

QUESTION 25

If she repays the amount over 10 fortnights, how much will she pay each fortnight?

A. K50   B. K105

C. K100   D. K150

PART B (Questions 26 – 45)

For each question, work out the answer and write the answer in the space provided on the ANSWER SHEET provided.
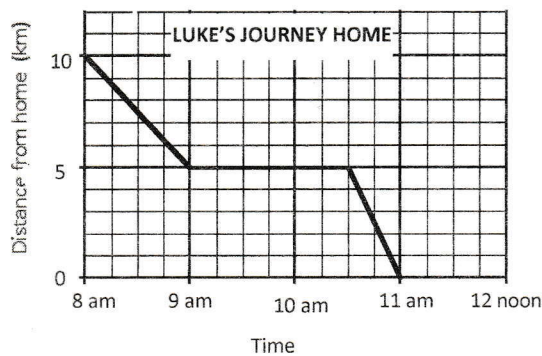
QUESTION 26

Evaluate, $-5^2 \times 8$

QUESTION 27

K200 was shared amongst John and Steven in the ratio of 3: 7 respectively. How much did Steven receive?

Questions 28 to 30 refer to the information below.

The graph shows the journey Luke took from town to visit Mark at a nearby village and then went to his own home.

QUESTION 28

How far was Mark's home from town?

QUESTION 29

How many minutes did Luke stay at Mark's home?

QUESTION 30

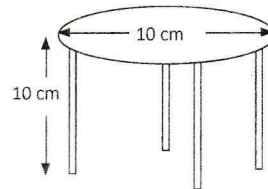At what speed did Luke travel from Mark's home to his village?

(Give your answer in km per hour)

QUESTION 31

A rectangular tank has its width exactly half it's length. The height of the tank is 3m and the length is 8m.

What is the volume of the tank in m^3?

Questions 32 and 33 refer to the scale drawing.

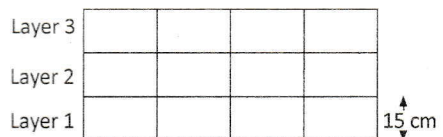The scale drawing of the table to the real table is 1: 10

QUESTION 32

What is the real height, in **meters**, of the table's leg?

QUESTION 33

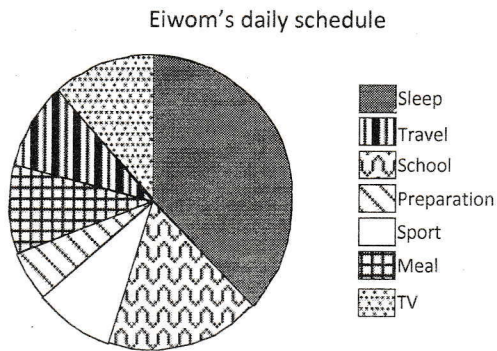What is the circumference, in **meters**, of the top of the real table? ($\pi = 3.14$)

QUESTION 34

Lemeka needs to build a 3.6m tall brick wall. He uses bricks with the height of 15cms.

How many layers of brick will the wall have.

Questions 35 and 36 refer to the information below.

Eiwom's daily schedule

- Sleep
- Travel
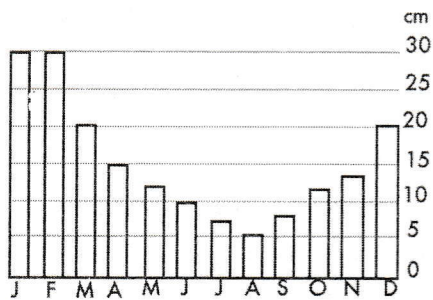- School
- Preparation
- Sport
- Meal
- TV

QUESTION 35

If Eiwom spent 4 hours playing sports, what would be the angle of the sports sector in the pie graph?

QUESTION 36

Eiwom spends 6 hours sleeping. What percentage of her 24 hr day, is spent sleeping?

Questions 37 and 38 refer to the information below.

Average rainfall in Jakarta
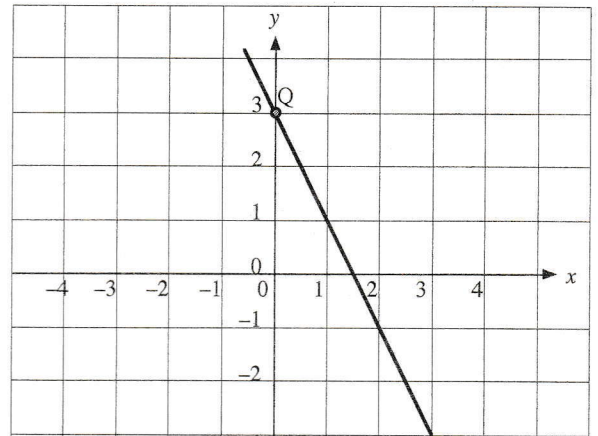

QUESTION 37

What is the difference, in average cm, between the wettest and the driest month?

QUESTION 38

What is the total average, in cm, of rainfall in the first 5 months?

Questions 39 -40 refer to the graph below.

QUESTION 39

What is the value of y, when x is 1?

QUESTION 40

What is the coordinate of the point Q?

QUESTION 41

The rule of the graph is $y = -2x + 3$.

What is the value of y when $x = -3$

QUESTION 42

What is the value of $(x - y)^2$ when If $x = 8$ and $y = -3$,

QUESTION 43

K1.00 is equal to 0.24 English pounds. How many English pounds will you get if you exchanged K1,000?

Questions 44 and 45 refer to the ingredients of a recipe.

Ingredients to make 1 fruit cake

2 cups of self-raising flour

1 teaspoon of soda

1 cup of sugar

1 cup of mix fruits,

1 egg

1 cup of milk

$\frac{1}{4}$ Cup butter

QUESTION 44

What is the ratio of milk to self-raising flour?

QUESTION 45

How many cups of butter will Mary need to make 8 fruitcakes?

PART C (Questions 46 -50)

For this question, work out the answers correctly for every part of the question and write the answer in the space provided on the ANSWERSHEET.

Note: Every step must be correct to get the next step right.

QUESTION 46

A rectangular swimming pool is 10 meters long and 5 meters wide. The pool has an even depth of 2 meters.

Given that: $1m^3 = 1000L$, $1m^3 = 1kL$

(i)   Calculate the area of the base of the rectangle.

(ii)   Calculate the volume of rectangular pool, answer in correct unit.

(iii) How many litres of water is in the pool?

(iv)   How many kilolitres of water will the pool hold when it is full?

(v)   How much would it cost to fill the pool if water is charged at K10 per kilolitre?

END OF EXAMINATION

PART A: (Questions 1 to 25)

Write A, B, C or D in the box next to the question number.

Q1.	
Q2.	
Q3.	
Q4.	
Q5.	

Q16.	
Q17.	
Q18.	
Q19.	
Q20.	

Q6.	
Q7.	
Q8.	
Q9.	
Q10.	

Q21.	
Q22	
Q23.	
Q24.	
Q25.	

Q11.	
Q12.	
Q13.	
Q14.	
Q15.	

For markers use only

PART A SCORE

Write your answer for each question in the box provided next to each question number.

Q26.			Q36.		%
Q27.	K		Q37.		cm
Q28.		km	Q38.		cm
Q29.		hours	Q39.	$y =$	
Q30.		km per hour	Q40.	(,)	
Q31.		m^3	Q41.	$y =$	
Q32.		m	Q42.		
Q33.		m	Q43.	English Pounds	
Q34.			Q44.		
Q35.		o	Q45.		

For markers use only : PART A SCORE

PART C (Question 46)
Answer Question 46 in the space below. This question carries a total of 5 marks.

QUESTION 46

(i)	Area of the base of rectangle, A =
(ii)	Calculate the volume of the rectangular pool, V =
(iii)	Volume of the rectangular pool with the correct unit. V =
(iv)	How many litres of water are in the pool? L
(v)	How much does it cost to fill the pool? K

For markers use only: TOTAL SCORE FOR PART C:

END OF EXAMINATION