SECONDARY SCHOOLS ANNUAL EXAMINATIONS 2007
Educational Assessment Unit - Education Division

FORM $1 \quad$ MATHEMATICS - Scheme B $\quad$ TIME: 45 minutes (Non-Calculator Paper)

| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL |
| ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mark |  |  |  |  |  |  |  |  |  |  |  |  |

DO NOT WRITE ABOVE THIS LINE

Name : $\qquad$ Class : $\qquad$

## INSTRUCTIONS TO CANDIDATES

- Answer all questions.
- This paper carries 40 marks.
- Calculators and protractors are not allowed.

1. Work out:
(a)
23.55
(b) $84 \times 2000$
$\qquad$

| +517.63 |
| :--- |

$\qquad$
(c) $20 \%$ of Lm640

Lm
(4 marks)
2. Find the size of the angles marked $x$ and $y$.

3. John has a piece of wire $\mathbf{2 . 5} \mathbf{~ m}$ long. He cuts off two pieces, each $\mathbf{3 5} \mathbf{~ c m}$ long. What is the length of wire left?
$\qquad$
4. Work out:
(a) $16.45 \div 7=$
(b) $0.69 \div 0.03=$ $\qquad$
5. Fill in:

$$
\frac{2}{5}=\frac{\square}{10}=0 . \square=\square \%
$$

6. A pizza costs Lm2.75. An estimate for the cost of 11 such pizzas is:
(a) Lm285
(b) Lm 30
(c) Lm 22
(d) Lm115

Lm $\qquad$

$\begin{array}{llllll}7 . & 7 & 15 & 25 & 28 & 33\end{array}$

From the above list of numbers, write down:
(a) a multiple of 4 .
(b) a prime number.
(c) a factor of 35 . $\qquad$
(d) a square number. $\qquad$
8. (a) $28 \times 12=336$.

Then $28 \times 6=$
(b) $10^{4}$ is the same as:
(i) 40
(ii) 4000
(iii) 10000
(iv) 0.4
9. A bustrip is 1 hour 5 minutes long.

The busleaves at 11.55 a.m. At what time does it amive?

(3 marks)
10. Work out and simplify:



11. This is a number (function) machine:


What is the Output when the Input is 5 ?
12. (a) Work out:

$$
-6-(-10)=
$$

$\qquad$
(b) On Monday the temperature in Oslo was $-15^{\circ} \mathrm{C}$. On Friday the temperature was $-9^{\circ} \mathrm{C}$. By how much did the temperature rise?


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FORM 1
MATHEMATICS - SCHEME B
Time: 1h 15min (MAIN PAPER)

| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Paper <br> 2 | Paper <br> 1 | Global <br> Mark |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
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DO NOT WRITE ABOVE THIS LINE

Name: $\qquad$ Class: $\qquad$

- Answer all questions.
- This Paper carries 60 marks.
- Calculators and mathematical instruments are allowed but all necessary working must be shown.

1. Put these numbers in order of size, sta ring from the smallest

$$
\text { 3.4, } \quad 34, \quad 3.39, \quad 3.33, \quad 3.399
$$

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
2.


Which of these shapes:
(a) ha s only 1 line of symmetry?
(b) has rotational symmetry of order 3?
(c) has no line of symmetry?
3. Use these words to describe each of the events below:

## Certain Likely Unlikely Impossible


(a) The weather on August $15^{\text {th }} 2007$ will be sunny. $\qquad$
(b) Christmas 2007 will be on December $27^{\text {th }}$. $\qquad$
(c)J a nuary $1^{\text {st }}$ will be a school holiday. $\qquad$
(d) There will be 8 days in the second week of May. $\qquad$
4. The pie-chart shows how a group of 400 students travel to school each day.
(a) Complete:

| Type of Travel | Bus | Car | Walk | Other |
| :--- | :---: | :---: | :---: | :---: |
| Angle | $144^{\circ}$ | $108^{\circ}$ |  | $36^{\circ}$ |

(b) How many of the students go to school by bus?
(Give the a nswer as a fraction in its simplest form.)
(c) How many students go to school by car?


By Car =
5. (a) Express 640 mm in metres.
$\qquad$ m
(b) Express 21 cm in metres.


In the figure, $A F=E D$.
(c) What is the length of AF in metres?
$\qquad$ m
(d) What is the area of the whole shape ABCDEF in $\mathrm{m}^{2}$ ? Give your answer correct to 2 d.p.
$\qquad$ $\mathrm{m}^{2}$
6. a) Write these qua ntities in order of size, smallest first
750 ml
0.8 litre
1.7 litre
1500 ml
$\qquad$
$\qquad$
$\qquad$
$\qquad$ .
b) A carton holds 2.5 litres of orange juice. Sandra pours the juice into glasses each holding 150 ml .
How many full glasses can she fill?
7. May wants to draw a rectangle using LOGO.

The perimeter of the rectangle is 360 turtle steps.
a) What is the width in turtle steps?

$\qquad$ steps
b) Complete the following LOGO instructions to draw the rectangle:

## PD

REPEAT
[PD RT90 FD $\qquad$ RT90]
8.


Pattem 1


Pattem 2


Pattem 3

Pattem 4

The figure shows people seated at tables at a restaurant.
a) Draw the next pattem.
b) Use the above figure to complete the table.

| No. of tables | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ |
| :--- | :--- | :--- | :--- | :--- |
| No. of people |  |  |  |  |

c) How many people will there be when there are 6 tables?
9.

a) Plot these points:

$$
\mathbf{A}:(-2,-1) ; \mathbf{B}:(4,-1) ; \mathbf{D}:(0,3) .
$$

b) Join AB and AD.
c) Plot the point $C$ so that $A B C D$ is a parallelogram.
d) Write down the co-ordinates of point $\mathbf{C}$.
C: $\qquad$ ()
10. a) John is 12 years old and Mary is 8 years old.
i) Express the ratio of their a ges in its simplest form.

John: Mary = $\qquad$ : $\qquad$
ii) What will be the ratio of their ages in eight years' time?

> John: Mary =
$\qquad$ : $\qquad$
b) The picture shows pen drawn to a scale 1:3. What is the real length of the pen?
$\qquad$
11. a) Shade $20 \%$ of the shape.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

b) These cookies contain 16\% fat. What weight of fat is used per packet of cookies?


## END OF PAPER

