



Name of Candidate	
Index Number	
School	

Mauritius Examinations Syndicate

Prevocational Examination

Specimen Paper Year III 2014

NUMERACY & PROBLEM SOLVING SKILLS APPLYING MATHEMATICS

1 hour

Instructions

1. Write your Name, Index Number and School Name in the space provided above.
2. All rough working should be done in this booklet.
3. **Do not** use correction fluid.
4. Answer all questions.
5. All answers must be written in the spaces provided.
6. Show all your workings.
7. Ask your teacher if you are not sure what to do.
8. Diagrams are **not** drawn to scale unless otherwise stated.
9. The total of the marks for this paper is **50**.

Section/ Question	Marking		Revision		Quality Control	
	Marks	Sig.	Marks	Sig.	Marks	Sig.
Qu 1						
Qu 2						
Qu 3						
Qu 4						
Qu 5						
Total						

1. (a) Work out the following:

<p>(i) $486 + 312 =$</p> <p style="text-align: right;">Ans: _____</p>	<p>(ii) $583 - 242 =$</p> <p style="text-align: right;">Ans: _____</p>
<p>(iii) $100 \times 8 =$</p> <p style="text-align: right;">Ans: _____</p>	<p>(iv) $639 \div 3 =$</p> <p style="text-align: right;">Ans: _____</p>
<p>(v) $\frac{2}{5} + \frac{1}{5} =$</p> <p style="text-align: right;">Ans: _____</p>	

- (b) Complete the table below by writing in words or in figures in the spaces provided.

425	_____
_____	Twelve thousand and thirty six.

[2]

- (c) Fill in the blanks by choosing the correct number from the list below:

0.25 , 3 , $\frac{1}{5}$, 2

An example has been done for you.

$$\frac{1}{5} \times 5 = 1$$

$$0.5 \times \underline{\hspace{2cm}} = 1$$

$$\underline{\hspace{2cm}} \times 4 = 1$$

$$\frac{1}{3} \times \underline{\hspace{2cm}} = 1$$

[3]

- (d) Find the H.C.F. of 18 and 45.

Answer: _____

[3]

- (e) Write down the missing numbers in the blank boxes provided.

(i) $-3 + \boxed{\hspace{2cm}} = -1$

(ii) $-1 + \boxed{\hspace{2cm}} = 7$

[2]

[Total Question 1 = 15 marks]

Please turn over this page

2. Circle the letter which shows the correct answer.

(a) The value of **2** in 42 634 is

A 2 units

B 2 tens

C 2 hundreds

D 2 thousands

(b) Which one of these numbers is a **square** number?

A 8

B 24

C 36

D 48

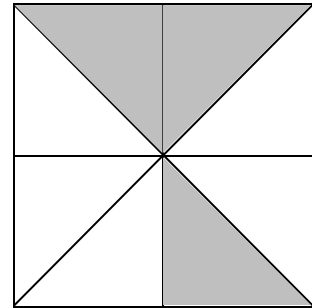
(c) What fraction of the diagram is shown **shaded**?

A $\frac{3}{9}$

B $\frac{3}{8}$

C $\frac{3}{5}$

D $\frac{3}{4}$



(d) 21 is a **multiple** of

A 3

B 5

C 9

D 11

(e) Which one of these is the **largest** decimal fraction?

A 9.240

B 9.420

C 9.124

D 9.142

(f) Convert 2.2 **grams** into **milligrams**.

A 22 mg

B 220 mg

C 2200 mg

D 22 000 mg

(g) Calculate 2^3 .

A 23

B 8

C 6

D 5

(h) Work out: $20 - (6 + 2) \div 4$

A 18

B 17

C 4

D 3

(i) 2 apples cost Rs 12. What is the cost of 4 apples?

A Rs 6

B Rs 8

C Rs 24

D Rs 48

(j) $\frac{14}{5}$ is equivalent to

A $1\frac{4}{5}$

B $2\frac{4}{5}$

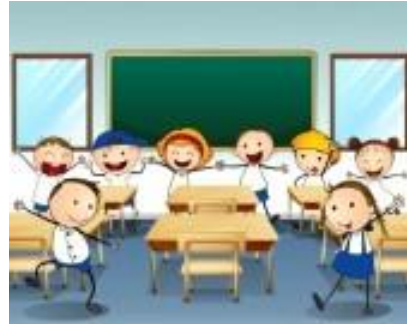
C $3\frac{1}{5}$

D $4\frac{1}{5}$

[Total Question 2 = 10 marks]

Please turn over this page

3. (a) In a class there are 48 pupils in all. $\frac{7}{12}$ of all the pupils are girls.
How many **boys** are there in the class?



Answer: _____ boys

[3]

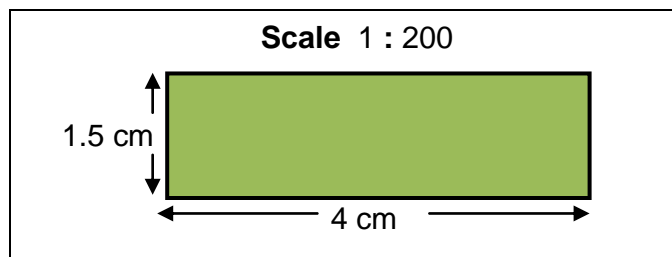
- (b) Ben buys 3 pens and 2 erasers. The cost of **one** eraser is Rs 6.50.
Ben spends Rs 58 in all.

What is the cost of the 3 pens?

Answer: 3 pens = Rs _____

[3]

- (c) A rectangular garden has length 4 cm and width 1.5 cm on a plan.
If 1 cm on the plan represents 200 cm on land (scale 1 : 200), calculate the actual length and width of the garden in **metres**.



Actual length = _____ m

Actual width = _____ m

[3]

- (d) A piece of ribbon is 120 cm long. A florist cuts the ribbon into two pieces in the ratio 2 : 4. Calculate the **difference** in length between the two pieces of ribbon.



Answer: _____ cm

[3]

(e)



The rate at which a worker is paid is as follows:

- Rs 600 per hour for normal working hours;
- Rs 900 per hour for overtime.

The worker receives Rs 31 200 at the end of the week. He spent 40 h in normal working.

How much money did he get for working overtime?

Answer: Rs _____

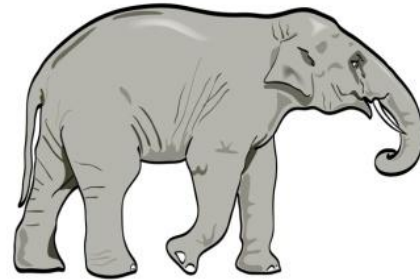
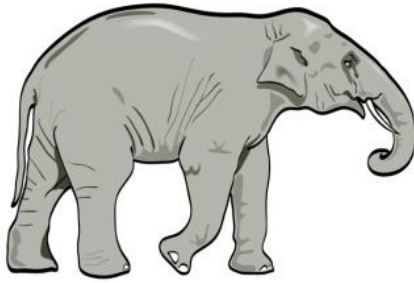
[3]

[Total Question 3 = 15 marks]

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4. The owner of a zoo has to transport 2 elephants, 1 hippopotamus and 1 giraffe from one zoo to another.

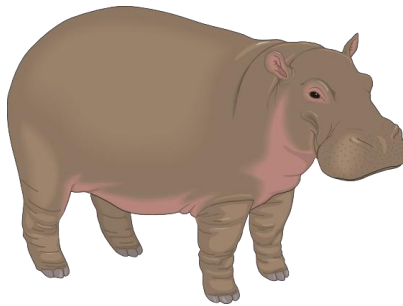
- (a) Each elephant has a mass of **4.8 tonnes**.
What is the mass of the 2 elephants in **kilograms**?



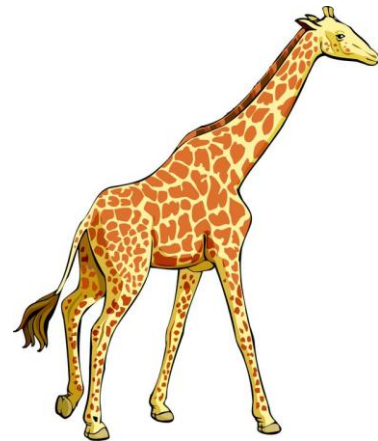
Answer: _____ kg

[2]

- (b) The mass of the hippopotamus and the giraffe is given below:



mass = 1300 kg



mass = 820 kg

What is the **total** mass of the hippopotamus and the giraffe?

Answer: _____ kg

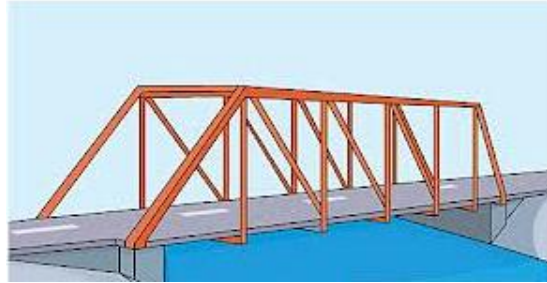
[1]

- (c) An **empty truck** weighs 11 000 kg. It is used to carry the animals from one zoo to another. On the trip, the truck has to cross a bridge.

The bridge can hold a **total** mass of 16 000 kg.



mass = 11 000 kg



What is the **maximum** number of animals which the truck can carry on **one** trip?

Answer: _____

[2]

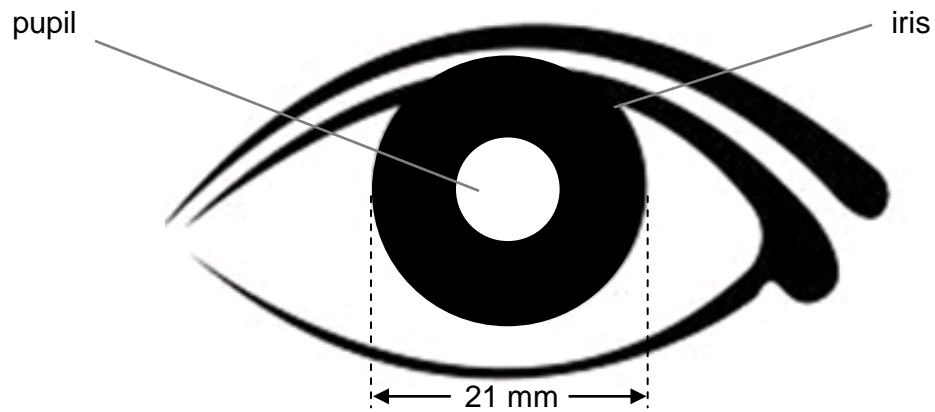
[Total Question 4 = 5 marks]

5. [Use $\pi = \frac{22}{7}$ in this question]

The diagram below shows the top view of a human eye.

The part of the eye which is shaded in black is called the **iris**.

The white inner circle is called the **pupil**.



- (a) The **diameter** of the iris is 21 mm.

Calculate the **circumference** of the iris.

Answer: _____ mm [2]

- (b) The **area** of the pupil is 38.5 mm^2 .

Calculate the **shaded area** of the iris.

Answer: _____ mm^2 [3]

[Total Question 5 = 5 marks]

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