AWARDS

## SKILLSFIRST LEVEL 1 FUNCTIONAL SKILLS QUALIFICATION IN MATHEMATICS

## SECTION B - QUESTION AND ANSWER PAPER (RFSML1SAM01)

CALCULATOR - 1 HOUR AND 30 MINUTES
SAMPLE ASSESSMENT MATERIAL

## Do not open this paper until you are told to do so by the invigilator.

Overall assessment marks available: 60
Overall assessment time limit: 2 HOURS
There are TWO Sections to this assessment:

- Section A - please ensure you have handed in Section A before beginning Section B
- Section B includes Task 2, 3 and 4. You can use a non-scientific calculator for this section. Total marks available: 45 . Time limit: 1 hour and 30 minutes.


## For Section B you need:

- This question and answer paper
- A pen with black or blue ink
- A pencil
- A ruler
- A non-scientific calculator


## INTERNET ACCESS IS NOT PERMITTED

You now have a further 1 hour and 30 minutes to complete Section B.

## Instructions

1. Please sign and date below to confirm that your details are correct and that you have understood the instructions.
2. Read each task and question carefully.
3. Remember to show all your workings out clearly.
4. The number of marks available for each question is shown in brackets. Use these marks to guide you on how long to spend on each question.
5. Answer all questions using the space provided on this question and answer paper.
6. If you have time, check your work for Section B at the end.
7. If you use extra paper, write your name, learner number and the question number you are answering on it, and securely attach it to this question and answer paper.
8. At the end of this section (Section B), hand in this question and answer paper and all notes to the invigilator.

Learner full name: $\qquad$
Learner number: $\qquad$ Centre number:

Learner signature: $\qquad$ Date: $\qquad$

## Section B

## Task 2 (15 marks)

## Question 8

A bag contains 6 red balls, 6 yellow balls and 6 blue balls. Express as a fraction the probability of picking out a blue ball.
Show your calculations and/or workings out here:
$\square$
Write your answer in this box.


## Question 9

Convert $\frac{5}{8}$ to a percentage.
Show your calculations and/or workings out here:
$\square$
Write your answer in this box.
$\square$

## Question 10

Calculate $2.5 \div 0.375$.
Give your answer to two decimal places.

Show your calculations and/or workings out here:
$\square$
Write your answer in this box.


AWARDS

## Question 11

a) Jared owns a bakery. He receives an order for party cakes to serve 72 people. He has this list of ingredients:

| Party Cake Ingredients |
| :---: |
| (Serves 12 people) |
| 400 g flour |
| 400 g butter |
| 375 g sugar |
| 6 eggs |

Jared has $23 / 4 \mathrm{~kg}$ of flour.
How much flour will Jared have left over if he bakes enough cakes for everyone at the party? Give the units in your answer.

Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

b) Jared wants to bake 6 loaves of bread. A loaf of bread takes 7 minutes to prepare. Jared will bake all the loaves at the same time. The loaves will take 45 minutes to bake. He allows 10 minutes for them to cool down.

What is the latest time that Jared should start preparing his first loaf of bread so that all the loaves are cooled by 6.15am?

Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

c) Jared needs to buy decorations for a celebration cake. He sees this price list at his local trade store.

| Item | Price |
| :---: | :---: |
| Candles | $13 p$ each |
| Icing | $£ 1.40$ per packet |
| Sugar Alphabet Letters | $56 p$ each |
| $\mathbf{2 0 \%}$ discount if you use your trade card |  |

Jared will use his trade card to buy the decorations. He buys 20 candles, 2 packs of icing and 15 letters to make the word CONGRATULATIONS.

How much money will Jared spend on the decorations using his trade card?

Show your calculations and/or workings out here:
$\square$

Write your answer in this box.
$\square$
d) Use approximation to check the amount of the trade discount.

Show your calculations and/or workings out here:

Write your answer in this box.


## Task 3 (15 marks)

Question 12
Write 'One hundred and ninety thousand, four hundred and ninety three' in numbers.
(1 mark)
Write your answer in this box.
$\square$

## Question 13

The table below shows interest rates from 5 different banks.

| Bank A | Bank B | Bank C | Bank D | Bank E |
| :---: | :---: | :---: | :---: | :---: |
| $4.72 \%$ | $4.07 \%$ | $4.726 \%$ | $4.672 \%$ | $4.76 \%$ |

Which bank offers the highest interest rate?
Write your answer in this box.


## Question 14

The table below shows the scores of 16 students in an exam.

| 42 | 33 | 28 | 19 | 35 | 41 | 36 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 38 | 31 | 29 | 27 | 44 | 40 | 28 |
| 39 | 14 |  |  |  |  |  |

Complete the table below to show frequency.

| Number of marks | Frequency |
| :---: | :---: |
| $0-9$ |  |
| $10-19$ |  |
| $20-29$ |  |
| $30-39$ |  |
| $40-49$ |  |

## Question 15

a) Ryan is a member of a five a side football team.

The table below shows the goal difference for Ryan's team over the last 4 football matches.

## Goal difference is the number of 'goals for' minus the number of 'goals against'.

Complete the table below to show the missing values.

| Match | Goals For | Goals <br> Against | Goal <br> Difference |
| :---: | :---: | :---: | :---: |
| Match 1 | 2 |  | -1 |
| Match 2 |  | 3 | 0 |
| Match 3 | 1 |  | -3 |
| Match 4 | 1 | 3 |  |
| Totals |  |  |  |

b) Ryan's team are playing a match on Saturday. The table below shows the predicted chance of rainfall on a scale of 0 to 1 from Monday to Saturday.

|  | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Predicted <br> chance of <br> rainfall <br> $(\%)$ | $40 \%$ | $50 \%$ | $35 \%$ | $0 \%$ | $92 \%$ | $88 \%$ |

Ryan thinks it is unlikely to rain on Saturday.
Is Ryan correct? Explain why you think this.

Write your answer in this box.

c) The players in Ryan's team warm up before the charity match by running at least 1 km around the edge of the pitch. How many full laps of the pitch will they need to run?


Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

d) Ryan's team sold 380 tickets for the charity football match.
$35 \%$ of the tickets sold were for children and $20 \%$ of the tickets were sold for senior citizens. The rest of the tickets were sold at full price for adults.

Ryan thinks that 176 tickets were sold at full price for adults.
Is Ryan correct?
Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

e) Ryan has collected £3697.40 from the 380 ticket sales. The football club will donate $£ 2.94$ from each ticket to charity.

How much money will be left after the donation?
Show your calculations and/or workings out here:
$\square$

Write your answer in this box.


## Task 4 (15 marks)

## Question 16

The table below shows sales of laptops over a 6-month period.

| Sales of laptops |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Months | Jan | Feb | Mar | Apr | May | June |  |
| Number of <br> laptops sold | 28 | 144 | 82 | 126 | 94 | 172 |  |

Draw a bar chart to show the sales of laptops over the 6-month period.
(3 marks)


## Question 17

a) Davinder makes jewellery that she sells to local markets. She wants to buy some small boxes with lids, like the picture below, to put necklaces in.


She receives a selection of boxes to choose from. The net diagram of each box is shown below.

Net A ( $7 \mathrm{~cm} \times 5 \mathrm{~cm} \times 1.5 \mathrm{~cm}$ )

Net B
(4cm $\times 4 \mathrm{~cm} \times 4 \mathrm{~cm}$ )


Net C ( $7 \mathrm{~cm} \times 5 \mathrm{~cm} \times 3 \mathrm{~cm}$ )

Net D
(10cm $\times 8 \mathrm{~cm} \times 3 \mathrm{~cm}$ )


Which net diagram best represents the box shown in the picture? Explain the reason for your choice of net in the box below.

b) Davinder has received an order for 100 bracelets.

She packages each bracelet into a box 10 cm by 8 cm by 3 cm .


Davinder will put the 100 boxes of bracelets into larger boxes for postage and delivery.
She has a choice of Box A or Box B, with measurements as shown below. She will only use one size of box.

Box A costs $£ 0.70$ each and Box B costs $£ 1.80$ each. She wants to spend as little as possible.

Box A


Should Davinder choose Box A or Box B?

(4 marks)

Show your calculations and/or workings out in the box at the top of the next page.

Show your calculations and/or workings out here:

## Question 18

a) Davinder wants to know what her best-selling item of jewellery is and which jewellery item sold the most consistently over the 6-month period from July to December.

She has this information:

| Jewellery item | Mean of items sold per <br> month | Range of items sold per <br> month |
| :--- | :---: | :---: |
| Bracelets |  |  |
| Necklaces | 47 | 84 |
| Rings | 35 | 62 |
| Earrings | 39 | 71 |

The table below shows the sales of bracelets over the 6-month period:

| Months | Jul | Aug | Sept | Oct | Nov | Dec |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> Bracelets Sold | 23 | 22 | 38 | 28 | 44 | 97 |

Which is the best-selling jewellery item over the 6-month period?
Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

b) Which jewellery item sold the most consistently over the 6 -month period?
(2 marks)
Show your calculations and/or workings out here:

Write your answer in this box.

c) Davinder makes a profit of $£ 1592$ from jewellery sales. She wants to use a third of the profit to buy more stock and pay the remainder into a savings account.

How much money will Davinder pay into the savings account?
(2 marks)

Show your calculations and/or workings out here:
$\square$

Write your answer in this box.

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