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| EGC_Black | | Mathematics Essentials 2015  Test 1  Task Weighting: 10% | | |
| Student Name: | \_\_\_\_\_\_ | |  |

Time Allowed: 50 Minutes Total Marks: 49

**Calculators and files are allowed in this test.**

***Answer all of the following questions. Show all working to maximise marks.***

**Question 1** [6 Marks: 1, 1, 1, 1, 2]

(a) 30 5 2 (b) 4 (5 + (568))

(c) 15% of $800 (d) of $90

(e) Insert brackets to make this statement true : 4 + 23 2 ‒ 6

**Question 2** [2 Marks]

Sam bought a new pair of shoes in a ‘35% off’ sale. Normally the shoes cost $90. How much did Sam pay for the shoes in the sale?

**Question 3** [2 Marks]

Rhett has $45 000 saved. He is going to use two thirds of his savings as a deposit on a house. How much is his deposit?

**Question 4** [5 Marks: 1, 1, 1, 1, 1]

Round each number to the given accuracy:

1. 346 (nearest 10) (b) 27.48 (one decimal place)

(c) 1001.98 (one decimal place) (d) $72.634 ( nearest cent)

(e) $72.634 (nearest 5c)

**Question 5** [4 Marks: 1, 1, 1, 1]

0.5

1

0

Place the following decimal, percentage and fractions on the number line above:

1. 0.2 (b)  (c) 60% (d) 

**Question 6** [2 Marks]

Calculate the 2.5% commission earned by a real estate agent on the sale of property worth $325 000.

**Question 7** [3 Marks: 1, 2]

Gavin sells Tupperware and earns 8% of the total sales. One week he had three parties, one valued at $1500, one valued at $2200 and one at $940.

1. What was the total value of sales for the week?
2. What commission did he earn?

**Question 8** [2 Marks: 1, 1]

Write each set of numbers in order from smallest to largest.

(a) 53.7, 53.8, 53.81, 53.75

(b) 7.29, 7.3, 7.289, 7.298

**Question 9** [4 Marks: 1, 1, 1, 1]

(a) Express as a decimal. (b) Express 65% as a decimal.

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(c) Change to a percentage. (d) Express 0.25 as a fraction.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Question 10** [4 Marks: 1, 1, 1, 1]

In each pair, **circle** the amount that has the greater value.

(a) 0·7 or 80% (b)  or 75%

(c)  or  (d)  or 

**Question 11** [4 Marks: 2, 2 ]

John has just commenced his first job ever at J-Mart earning $725 per week with 9% superannuation.

1. Calculate his superannuation for the week.
2. How many weeks will it take his superannuation to grow to $1000?

**Question 12** [5 Marks: 3, 2]

Three online stores are selling iPad Airs for the following prices:

**RETRO VISUAL**

iPad Air

$693

OFF

**HARDLY NORMAL**

iPad Air

$709

12% OFF

**RICK SMYTH’S**

iPad Air

$621

1. Which store offers the best deal and by how much? Show working to support your answer.
2. Each store has postage charges as follows:

Rick Smyth’s - $28 Hardly Normal - $19.95 Retro Visual - $15

Does this affect which store you choose? Explain with calculations.

**Question 13** [3 marks]

In an Olympic diving competition, the highest and lowest scores are removed and the sum of the remaining 5 scores is multiplied by the diver’s degree of difficulty. Then the result is multiplied by 0·6. The judges held up these cards for a dive with 3·2 degree of difficulty.

Calculate the final score for the dive.

**7.3**

**7.0**

**7.7**

**7.4**

**7.8**

**7.7**

**7.5**

**Question 14** [3 marks: 1, 2]

Adrian asked 30 friends about their favourite barbecue food. The table below shows the results.

**(a)** For what fraction of the friends is seafood their favourite?

|  |  |
| --- | --- |
| Food | Number who chose it as their favourite |
| Sausages | 16 |
| Steak | 8 |
| Seafood | 6 |

**(b)** What percentage of the group prefers sausages?

END OF TESTn