MS. RAGBIR CSEC MATHEMATICS LESSONS
END OF TERM 1 TEST

INSTRUCTIONS:
This test comprises of two parts:
Section A – 25 multiple choice questions
Section B – 2 structured questions.

You are required to answer **ALL** the questions in each section in the space provided.

You are not allowed to use a calculator in section A only. This section is 65 minutes long.

1. 0.875 written as a common fraction is

(A) $\frac{1}{4}$
(B) $\frac{1}{2}$
(C) $\frac{3}{4}$
(D) $\frac{7}{8}$

2. The number 3.14063 written correct to 3 decimal places is

(A) 3.140
(B) 3.141
(C) 3.146
(D) 3.150

3. The EXACT value of $2 \div (0.01)^2$ is

(A) 0.0002
(B) 0.0005
(C) 5000
(D) 20 000

4. $0.386 \times 0.06 =$

(A) 0.02316
(B) 0.2316
(C) 2.313
(D) 23.16

5. If \$350 is divided into two portions in the ratio $2:5$, the smaller portion is

(A) \$ 70
(B) \$100
(C) \$175
(D) \$250

6. If 60% of a number is 90, what is the number?

(A) 30
(B) 54
(C) 150
(D) 180

7. The H.C.F. of 12, 15 and 60 is

(A) 1
(B) 3
(C) 12
(D) 60

8. The value of the digit 2 in 425.3 is

(A) 2 tenths
(B) 2 ones
(C) 2 tens
(D) 2 hundreds

9. 99×101 is the same as

(A) $(99 \times 100) + 1$
(B) $(99 \times 100) - (99 \times 1)$
(C) $(99 \times 100) + (99 \times 1)$
(D) $(99 \times 100)(99 \times 1)$

10. What is the least number of plums that can be shared equally among 6, 9 or 12 children?

(A) 27
(B) 36
(C) 54
(D) 72

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11. The sum of $\frac{1}{2}$ and $\frac{1}{3}$ is

(A) $\frac{2}{5}$

(B) $\frac{3}{5}$

(C) $\frac{5}{6}$

(D) $\frac{7}{6}$

12. A man bought a calf for $200 and sold it for $250. What was his gain as a percentage of the cost price?

(A) 5%
(B) 15%
(C) 20%
(D) 25%

13. A salesman is paid 5% of his sales as commission. His sales for last month were $2020. How much commission was he paid?

(A) $ 11.00
(B) $ 20.20
(C) $101.00
(D) $110.00

14. How much does a customer pay for an article marked at $50.00 if a sales tax of 6% is charged?

(A) $56.00
(B) $53.00
(C) $47.00
(D) $44.00

15. The exchange rate for one United States dollar ($US\$1.00$) is two dollars and seventy cents in Eastern Caribbean currency ($EC\$2.70$) What is the value of $US\$4.50$ in EC currency?

(A) $ 1.67
(B) $ 6.00
(C) $ 7.20
(D) $12.15

16. $(8a)^2 =$

(A) $16a$
(B) $64a$
(C) $16a^2$
(D) $64a^2$

17. $(-8a)\times(-3b) =$

(A) $-24ab$
(B) $-11ab$
(C) $11ab$
(D) $24ab$

18. $5(2x-y)-2(3y-5x) =$

(A) $-11y$
(B) $2x-6y$
(C) $6x-7y$
(D) $20x-11y$

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19. $3x^2 \times 2x^3 =$

(A) $6x^5$
(B) $5x^5$
(C) $6x^6$
(D) $72x^5$

20. If $m * n = \sqrt{mn - n^2}$, then $5 * 3 =$

(A) $\sqrt{6}$
(B) 3
(C) $\sqrt{15}$
(D) 6

21. If $50 - 3x = x - 26$, then $x =$

(A) -12
(B) -6
(C) 6
(D) 19

22. If $P = \frac{m^2}{2-m}$, when $m = -3$, then $P =$

(A) -6
(B) $\frac{-6}{5}$
(C) $\frac{9}{5}$
(D) 9

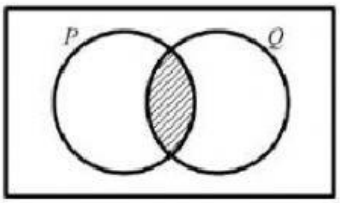
23. Althea saves $\$x$ each month; but in June she saved $\$4$ more than twice her regular amount. In June she saved

(A) $\$4x$
(B) $\$6x$
(C) $\$(x+4)$
(D) $\$(2x+4)$

24. The simple interest on $\$400$ at 5% per annum for 2 years is given by

(A) $\$\frac{400 \times 5 \times 2}{100}$
(B) $\$\frac{400 \times 5}{2 \times 100}$
(C) $\$\frac{400 \times 2}{5 \times 100}$
(D) $\$\frac{400 \times 100}{2 \times 5}$

25.



The two circles above represent set P and set Q.
If $P = \{\text{Factors of } 6\}$ and $Q = \{\text{Factors of } 4\}$, then the shaded region represents

(A) $\{\ \}$
(B) $\{1, 2\}$
(C) $\{4, 6, 8, ...\}$
(D) $\{12, 24, 36, ...\}$

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SECTION B

This section has two questions worth 25 marks. You can use a calculator. You have 40 minutes to complete this section.

Answer ALL questions.

All working must be clearly shown.

1. (a) Simplify completely

(i) $3p^2 \times 4p^5$

Answer = **2 marks**

(ii) $\dfrac{3x}{4y^3} \div \dfrac{21x^2}{20y^2}$.

(2 marks)

b.

Write as a single fraction:

$$\frac{2x+3}{3} + \frac{x-4}{4}$$

Answer =

(3 marks)

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c. Find the value of $2\pi\sqrt{\frac{l}{g}}$ where $\pi = 3.14, l = 0.625$ and $g = 10$.

.....**(2 marks)**

d.

If $a * b = a^2 - b$, evaluate $5 * 2$.

.....**(3 marks)**

TOTAL MARKS = 12

2.

(a) Using a calculator or otherwise, evaluate EACH of the following:

(i) $\dfrac{2\frac{1}{4} - 1\frac{3}{5}}{3}$

.....**Answer =**.....**(2 marks)**

(ii) $\sqrt{0.0529} + 0.216$, expressing your answer in standard form.

(3 marks)

.....**Answer =**.....

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(b) The table below shows the number of tickets sold for a bus tour. Some items in the table are missing.

Tickets Sold for Bus Tour			
Category	**Number of Tickets Sold**	**Cost per Ticket in $**	**Total Cost in $**
Juvenile	5	P	130.50
Youth	14	44.35	Q
Adult	R		2483.60

(i) Calculate the value of P.

Answer P = $

.....**(2 marks)**

(ii) Calculate the value of Q.

Answer Q = $

.....**(2 marks)**

(iii) An adult ticket is TWICE the cost of a youth ticket. Calculate the value of R.

Answer R = tickets

.....**(2 marks)**

(iv) The bus company pays taxes of 15% on each ticket sold. Calculate the taxes paid by the bus company.

Answer = $

.....**(2 marks)**

Total Marks = 13

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