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##  Department of Education, Southern Province

## YEAR END EVALUATION 2022/ 2023

MATHEMATICS
2 hours
Name / Index Number $\qquad$
PART I

- Write down the answers for all the questions in the paper itself.
- Each question carries 2 marks.

1. $\mathrm{P}=\{$ letters of the word "classroom" $\}$

Represent the set P in Venn diagram.
2. Simplify $20-10 \div 2$
3. Find the value.
i) $(-3)+(-5)$
ii) $(+3)+(-5)$
4. If $16=a^{b}=b^{a}$, write the values for $a$ and b


Write formula for
i) the perimeter $P$
ii) the area A for the given figure.
6. Write 0.7 i) as a fraction
ii) as a percentage
7. $43 \square$ 2 is a 4 digit number divisible by 9 . Write two suitable digits for the box.
8. Draw a parallel line to PQ through R and mark the parallelism.

9. i) Does 1786 AD a leap year or not?
ii) Which is the century of the year 1786 AD ?
10. Fill in the blank using $>,<,=3 \frac{3}{4} \ldots \ldots .3 \frac{5}{6}$
11. Find the value $15 \mathrm{~m} 4 \mathrm{~cm} \times 6$
12. Find the volume of the cuboid

13. The angle formed between the hour hand and the minute hand of a working clock is $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ and the angle formed between the hour hand and the minute hand of a non-working clock is $\qquad$
14.Simplify.

$$
\begin{array}{rr}
\mathrm{g} & \mathrm{mg} \\
150 & 755 \\
+\quad 240 & 348 \\
\hline \\
\hline \hline
\end{array}
$$

15. If a car travels 125 km by 10 litres of fuel, find the amount of fuel required to travel 1000 km
16. Show that the triangular prism satisfies Euler's relationship by considering the number of faces, edges and vertices it has.
17. A cement mixture is made by mixing cement and sand in the ratio of $2: 11$. Find the number of sand pans needed to mix with 10 pans of cement?
18. What is the actual distance of a foot path shown in 12 cm on a map drawn to a scale of 1:4000?
19. The $\qquad$ of any possible outcome in an experiment involving a fair object is equal.
20. 



A


B
A - ................................ tesssellation
B
tessellation

1. i) Write $m \times m \times n \times n \times n$ in index form.
ii) Simplify. $2 a+3+a-1$
( 2 marks )
iii) Solve. $2 x-5=11$
( 3 marks )
iv) The price of 1 kg of white sugar is Rs. $x$ and the price of 1 kg of brown sugar is Rs. $y$. Express the cost of 3 kg of white sugar and 500 g of brown sugar in an algebraic expression.
v) If $x=$ Rs. 215 and $y=$ Rs. 370 , find the cost spent for sugar by substituting values for the expression in (iv)
2. (a) Simplify.
i) $28.3 \times 10$
ii) $28.3 \div 100$
iii) $10.24 \div 8$
(b) i) Simplify $3 \frac{2}{5}+2 \frac{1}{4}$
ii) Find the length of the remaining piece after cutting $11 \frac{3}{4} \mathrm{~m}$ from a wire of length 20 m .
( 4 marks )
3. Using the information given in the figure,

i)find the perimeter
ii) find the area
(b) Shalika's birthday is on 2009-05-20. His sister is 3 years 7 months and 25 days younger than him.
i) When is his sister's birthday?
( 3 marks )
ii) How old is Shalika as at 2023-03-25 ?
(3 marks)
4. i) Write 24 as product of prime numbers and write in index form.
( 3 marks)
ii)Write 36 as product of prime numbers and write in index form.
( 3 marks )

- Answer the (iii) and (iv) questions using the answers of (i) and (ii) or any other method.
iii) Buses travel every 24 minutes from Galle to Makubura and every 36 minutes from Galle to Kadawatha along the express way. If two buses left to Makubura and Kadawatha at 6 a.m. At what time will two buses leave at same time again?
iv) Twenty-four guavas and thirty-six olives are divided among children without remaining. Each one gets equal number of guava and equal number of olives. Find the maximum number of children.

5. The following bar graph shows the number of boys and girls of 5 classes 7A, B, C, D, E.
Write the answers for the questions using the graph.

i. Which class has equal number of girls and boys?
ii. What is the difference between the maximum and minimum number of boys in a class?(2 marks )
iii. Write the ratio between boys and girls in 7 B class and express (ii) in simplest form. ( 2 marks )
iv. What is the total number of students in all 5 classes?
( 3 marks )
v. If 4 more boys and two more girls admitted to 7A class, what would be the percentage of boys in that class?
6. Plot the following points on a cartesian plane join them in the order. $(0,0),(2,3),(0,6),(3,5),(6,6),(4,3),(6,0),(3,1),(0,0)$

i. Draw the axes of symmetry of the figure by dotted line.
ii. Write the coordinates of the point where the axes of symmetry intersect.
iii. Is the image obtained by joining the points a convex polygon? Give reasons.
7. i) Draw a circle of radius 5 cm .
ii) Draw a hexagon which vertices are on the circle and name it as PQRSTU
iii) Construct equilateral triangle PQV such that the point $V$ lies outside the hexagon.
iv) Join PR and measure the magnitude RPV
v) Classify the triangle RPV,
(a) According to its angles
(b) According to its sides

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##  for G.C.E O/L and A/L Exams



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