SECOND TERM EVALUATION 2023					
Grade 08 Mathematics Paper		Paper I , II	Two hours		
Name :					
Answer all questions Each question carries	s 02 marks.				
Write the next two terr	ns of the number pattern. 8, 1	3, 18, 23,			
Find the value of $x$	x 50° 20°				
$A\hat{B}C$ and $P\hat{Q}R$ are a pa	ir of supplementary angles. If	$\hat{A}\hat{B}C = 63^{\circ}$ , find the m	nagnitude of $P\hat{Q}R$ .		
Simplify. $(-5) - (-7)$	)				
In the given figure,					
i. Find the number of	f axes of symmetry ?	=			
ii. Find the order of re	otation symmetry?				
Find the value of $\sqrt{324}$	by observation.	I			
Fill in the blanks.					
$10350 \ kg = \dots$	t kg				
Express as a power of p	product.				
16a <sup>2</sup> -					
$27x^3$ - Find the value of <i>a</i> and	b b				
D. Simplify. $3\frac{1}{5} \times 5\frac{5}{8}$	<u>40°</u>				
If $24 \times 3 = 72$ , find the	the value of $2.4 \times 0.03$				
2. Ann, Mary and Shein a	re friends. The ratio of their r	nass is 6:4:5. If Mary's n	nass is 40kg, calculate		
mass of Shein.					
Place a $\checkmark$ in front of th	e correct statements and a $\times$	in front of the incorrect s	tatements.		
The interior angles of	of quadrilateral is $70^{\circ}$ , $140^{\circ}$ , 9	$0^0, \overline{60^0}$			
$\sqrt{196} = 13$					

1

15. Simplify.  $\frac{-36}{(-6)\times(-2)}$ 

- 16. When 5 is added to two times the value of *x*, the result is 13. Construct a simple equation for this statement.
- 17. Identify the number pattern and write down the two number denoted by A and B.



- 18. The lorry was loaded with 7t of rice. 3t 750kg of it was unloaded in the warehouse of Sathosa. What is the mass of the remaining rice in the lorry.
- 19. Write down the expression as a product of two factors. 4b + 12ab 20
- 20. When the time in the (-3) time zone is 20:15 on Sunday. Find,
  - i. The time in Greenwich.
  - ii. In what time zone is Monday 3:15 at that moment.

## Part II

- Answer the first question and another 04 questions only.
- First question carries 16 marks and other questions carry 11 marks each.
- 01. Mr. Perera started a business on 1<sup>st</sup> of January of 2022 by investing Rs. 400 000/=. Mr. Silva joined the business four months later by investing Rs. 500 000/=. The table below shows how the money was invested in the joint venture.

Name	Amount invested	Period of investment	Amount × period
Mr. Perera	400 000	12	×
Mr. Silva	500 000		X

- a) i. Fill in the blanks in the above table.
  - ii. Calculate the ratio in simplest form in which the profit should be divided between Mr. Perera and Mr. Silva.
  - iii. At the end of this year, the profit from the business was Rs. 88 000/=. Find the amount received by Mr. Silva.
  - iv. Mr. Silva says that Mr. Perera invested less money in the business but received more than 50% of the total profit. Is Mr. Silva's statement true? Explain with reasons.  $\wedge$
- b) i. Name the solid which can be constructed using this net.
  - ii. Write down the shape of a face of this solid.
  - iii. Verify Euler's relationship for this solid by considering the number of faces, vertices and edges it has.



02. a) i. Find the value using the number line. (-2) + (+6)

ii. Solve the following equations. (i) 3

(i) 
$$3y + 2 = 11$$
  
(ii)  $4\left(\frac{y}{2} - 2\right) = 20$ 

b) Nimal has *x* rupees. The amount of money that Sunil has, is 100 rupees more than three times the amount of money that Nimal has.

i. Construct an algebraic expression for the amount Sunil has.

ii. If Sunil has Rs. 850/= calculate the amount Nimal has.



i. Find the perimeter of the figure.

ii. The perimeter of a square shaped flower bed is 800 cm. Find the length of one side of it in meters.



i. Find the area of the ABCD rectangle.

ii. Find the area of the ADE triangle.

iii. Find the area of shaded region.

04.  $A = \{$  Even numbers from 1 to 10  $\}$ 

 $B = \{ Odd numbers from 1 to 10 \}$ 

- $D = \{ Multiples of 10 between 1 and 5 \}$
- i. Express each of the set A and B with the elements written within curly brackets.

ii. Find the value of n(A)

iii. Fill in the blanks using the suitable symbol.

6..... A (∈,∉)

4 ..... B (∈,∉)

- iv. Write a set P in terms of a common characteristic of its elements, such that the elements can be identified clearly., where n(P) = 3
- v. a) How many elements does the set D have? What is the name of set D?
  - b) Write another way to denote the set D
  - c) Write an example for a set of type D.
- 05. a) i. Express 32% as a fraction and simplify it.
  - ii. Express  $1\frac{1}{4}$  as a percentage.
  - iii. Express the ratio 12:25 as a percentage.
  - b) At the beginning of a certain factory, there were 200 employees. 40% of them were women. After 2 months fifteen women left the factory. Instead of this women, male workers were recruited.
    - i. How many male workers are there in the factory at the beginning.
    - ii. Find the difference between male workers and female workers in the factory after two months.
- 06. The general term of the number pattern written in ascending order is  $\frac{n(n+1)}{2}$ 
  - a) i. Mention the number pattern of the given general term.
    - ii. Find the  $9^{th}$  and  $10^{th}$  terms of the number pattern.
    - iii. Show that the sum of the 9<sup>th</sup> and 10<sup>th</sup> terms of the above number pattern is equal to the 10<sup>th</sup> term of square number pattern, which starts from 1
    - iv. If,  $20 \times 21 = 420$ , which term is 210 ?
  - b) Find the value of 3(3a 2b) + 40 when a = 2 and b = 3
- 07. Using the information given in the figure, write down the answers.



vi. What is the complement of  $A\widehat{E}F$ 

