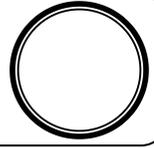




யா/ ஹாட்லிக் கல்லூரி, பருத்தித்துறை.

J/ Hartley College, Point Pedro.



முதலாம் தவணைப் பரீட்சை – 2019 – தரம் 08  
First Term Examination – 2019– Grade 08

கணிதம் I, II  
Mathematics I, II

32

E

I, II

இரண்டு மணித்தியாலம்  
Two Hours

க.க.உ.எ  
Index No

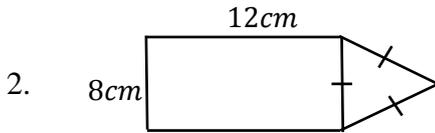
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**Mathematics**

**Part – I**

Answer the all questions.

1. Find the value of  $(-9) + 9$ ?



Find the perimeter of the given plane figure?

3. Remove the bracket and simplify.

$$4(a - b) - 3(b - a)$$

4. Find the value of  $\sqrt{2^2 \times 3^2 \times 5^2}$

5. Fill in the box

$$15.07t = \boxed{\phantom{0000}} \text{ Kg}$$

6.   
Find the value of a and b?

a. ....

b. ....

7. Factorise

$$P(m-n) - q(m-n)$$

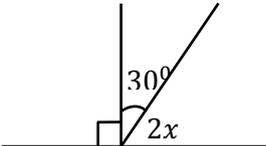
8. What is the complementary angle of  $83^\circ$ ?

9. If a certain solid has 9 edges and 6 vertices using the Euler's relationship, find the number of faces?

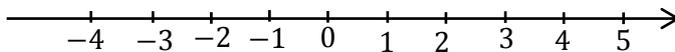
10. Simplify  $80.72 - 3.25$

11. If  $3x = 11$ , find the value of  $3(x - 1)$ ?

12. In which odd number is 179?

13.  Find the magnitude of  $x$ ?

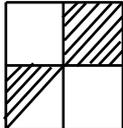
14. Find the value of  $(-2) - (-5)$ , by use the number line ?



15. What is the coefficient of  $x$  in the algebraic expression given below?

$$1 - x$$

16. Mention the names of three platonic solids

17.  Write this shaded portion as a fraction?

18. If the Area of a square is  $121\text{cm}^2$ . Find it's perimeter?

19. Write two consecutive numbers of the number pattern  $27, 18, 3, \dots$ ?

20. Find the value of  $[55 + (81)^{\frac{1}{2}}]$

**(20 × 2 = 40 Marks)**



04. 5, 9, 13, 17, .....

- i. Find the common difference of above number pattern.
- ii. Find the general term ( $T_n$ ) of the above number pattern.
- iii. Find the 25<sup>th</sup> term of the number pattern by use the general term.
- iv. In which term is 81.
- v. Find  $T_{20} + T_{21}$

(2 + 2 + 2 + 2 + 2)

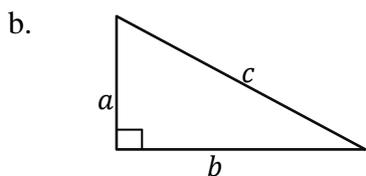
05.

- i. Express  $8a^3$  as a power of product.
- ii. Write  $(9ab)^2$  as a product of powers and simplify it
- iii. Simplify  
 $(3p)^3 \times (2q)^3$
- iv. If  $a^3 = 8 \times 27$ , find the value of  $a$
- v. Find the value of  $(-1)^{2017} + (-1)^{2018} + 2$

(2 + 2 + 2 + 2 + 2)

06.

- a. Write down the HCF of each of the following groups.
  - i.  $3x, 12xy, 15xy$
  - ii.  $4x^2y, 6xy, 8xy^2$



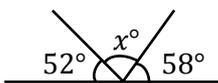
If the relationship  $C^2 = a^2 + b^2$  is true for the right angled triangle, find the value of  $c$  when  $a = 6$  and  $b = 8$

- c. If  $a$  is a negative integer, show that  $a^2 > a^3$

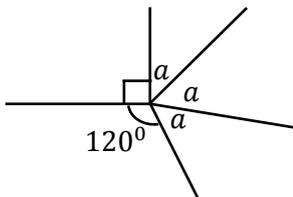
(2 + 2 + 3 + 3)

07.

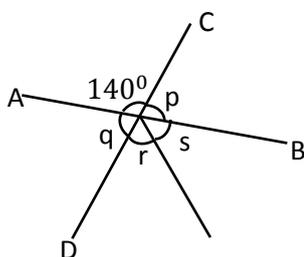
- i. Find the value of  $x$



- ii. Find the value of  $a$



- iii. AB and CD are two straight lines.



- a. Find the magnitude of 'p' (write the reason for your answer)
- b. Find the magnitude of 'q' (write the reason for your answer)
- c. If  $4s = 3r$ . find the magnitude of  $r$  and  $s$

(2 + 2 + 2 + 2 + 2)