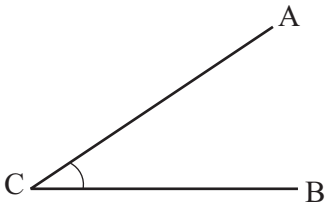
Grade 7 **First Term Test - 2019** **32 E**

Name..... **Mathematics - I** **2 hours**

Important : • **Answer all questions**
• **Each question will be given by 2 marks**

Part I

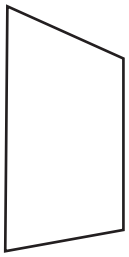
(01) Underline the correct answer.



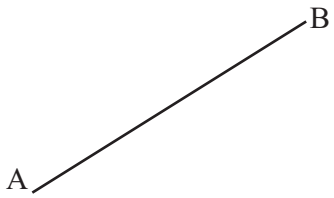
Angle $A\hat{C}B$ is,

i. an obtuse angle ii. an acute angle iii. a right angle

(02) If the given figure having a bilateral symmetry, complete the other part of it.



(03) Draw a parallel line to AB and name it as CD.



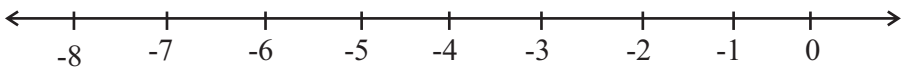
(04) Find the highest common factor of the numbers 12 and 15.

(05) Simplify.

$120 \div (3 + 2)$

(06) If $A = \{1,3,6,10\}$, Write down the set A in two other forms.

(07) Find the value using the number line. $(-1) + (-5)$



(08) Find the L. C. M. of the numbers 4, 15, 8

(09) Find the digital root of the number 109587

(10) The independence date of Sri Lanka is 4^{th} of February 1948. Write down it in the standard form.

(11) Select and underline the numbers which are divisible by four (4) without a remainder.

(a) 345 (b) 1024 (c) 1109 (d) 3440

(12) Simplify .

	Months	Days
	5	13
+	3	28

(13) If $x = 3$ and $y = 1$, find the value of $2x^2y$.

(14) Simplify.
5+ (-4) + (-3)

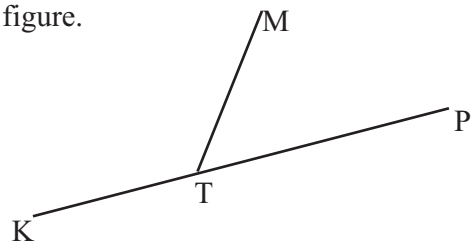
(15) Upali said that AD 1900 is a leap year. Do you agree with this statement? Give reasons.

(16) Fill in the blanks.

208 = 2 x 2 x 2 x 2 x ☐

= $2^{\square}$ x ☐

(17) Write down an acute angle and an obtuse angle from the given figure.



(18) Kaveesha's birthday is 05th May, 2007. If her friend Fathima is elder than Kaveesha by 2 years and 3 months, find out Fathima's birthday.

(19) Simplify.

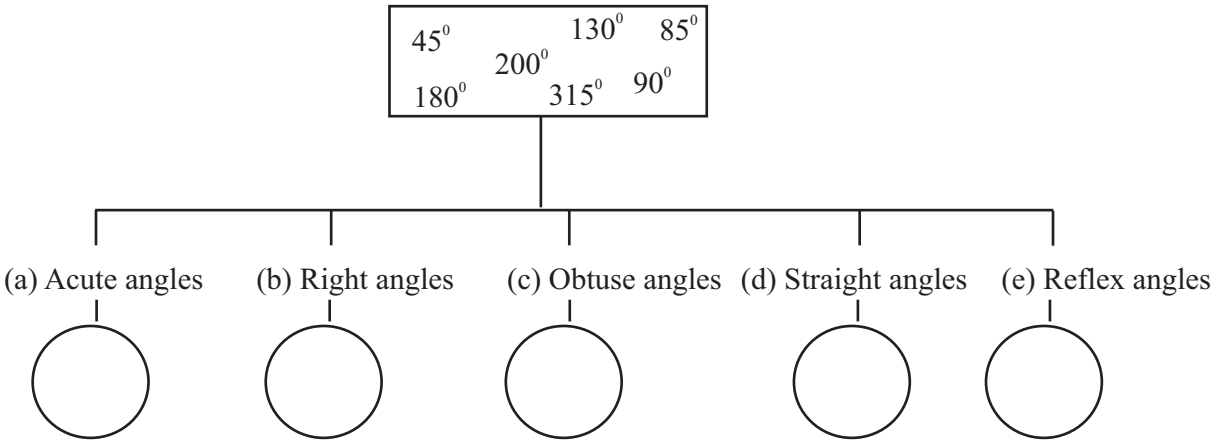
$\frac{3}{8} + \frac{1}{4}$

(20) There is a square which a side length is 12cm and it's perimeter is equal to an equilateral triangle. Find out a side length of the equilateral triangle.

Part II

Answer the first question and 4 other questions.
First question carries 16 marks and other questions carry 11 marks.

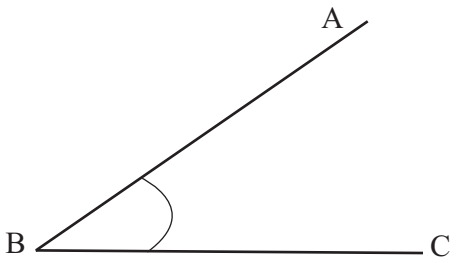
(01) i. Find below the cards which has given in a mathematical activity.
Write the magnitude of the angles in each circle.

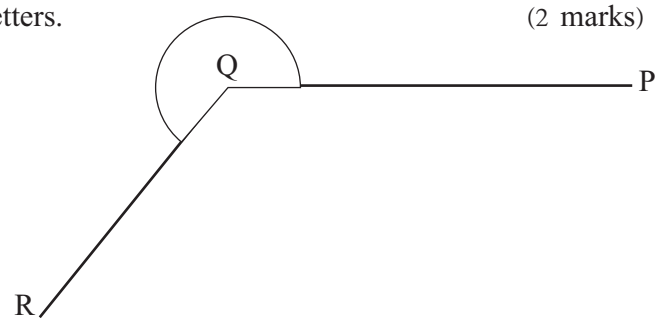


(7 marks)

ii. Write down an example for static angle and dynamic angle which you can find in the environment.
(2 marks)

iii. Name the following angles using English letters. (2 marks)





iv. Name the geometric instrument which used in the class room to draw the angles with the given magnitudes. (1 mark)

v. Draw the following angles using the above instrument. (4 marks)

(a) 45^0 (b) 210^0

16 Marks

(02) (a) i. Who was introduced representing a set by a closed figure ? (1 mark)

ii.. A = { Even numbers between 1 and 20 }
Write the set **A** with all the elements. (2 marks)

iii. B → {1, 4, 9, 16}

Write down the set **B** in terms of a common property of its elements by which the elements can be clearly identified. (2 marks)

(b) i. Write down all the factors of 20. (2 marks)

ii. Write down 36 as a product of it's prime factors. (2 marks)

iii. If, 36☐ is a 3 digits number which is divisible by 9 without a remainder, write 2 digits which is suitable for the blank cage. (2 marks)

11 Marks

(03) (a) On an old building in the school recorded that Gajaba college was started on 1823-01-02. The current principle of the school, Mr. Pathiraja was born in 1957-10-20.

i. Write down the decade of the school started? (1 mark)

ii. What is the century of Mr. Pathiraja's birth year. (2 marks)

iii. Write the leap year that is very closest to the AD 1823. (2 marks)

iv. What is the starting date of the 20^{th} century? (2 marks)

(b) i. Do the addition (2 marks)

	years	months	days
	6	09	25
+	3	07	10

ii. Do the subtraction (2 marks)

	years	months	days
	7	04	10
	-2	06	20

11 Marks

(04) (a) i. Write 32 in index notation with 2 as the base. (2 marks)

ii. Write 12 and 18 as a product of powers with prime numbers as bases. (2 marks)

iii. Through the answers of (ii) find the L.C.M. of 12 and 18. (2 marks)

iv. If a=3 , b=4 find the value of a^2b. (2 marks)

v. Three bulbs with red, blue and yellow are lightening in every 20 seconds, 30 seconds and 40 seconds respectively. If the 3 bulbs lightening together at the first time, after how many seconds will they again lighten together? (3 marks)

(05) a) Given bellow are two numerical expressions cards which were named by A and B. C is a button which wrote a number on the top.

2+ (7 x ☐)	(2+7) x ☐	C
A	B	

i. Write down the mathematical operation which used the first to solve the expression on card A? (1 mark)

ii. The answer 23 is obtained, when the button C has kept on the blank cage of card A.
What is the number has written on the button C? (2 marks)

iii. What is the answer obtained when the button C has kept on the blank cage of card B? (2 marks)

b) i. Find the value.

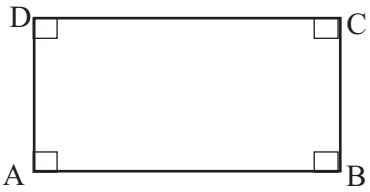
i. 7 + 2 - 3 (2 marks)

ii. 6 ÷ 3 - 2 (2 marks)

iii. 3 x 10 ÷ 5 x 2 (2 marks)

11 Marks

(06)



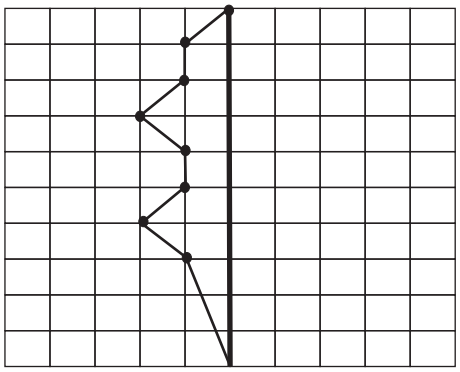
i. Name two pair of parallel lines in the given rectangle. (2 marks)

ii. Write down two mathematical equipments that used to draw parallel lines in the class room. (2 marks)

iii. Copy the given figure in your answer paper. Connect A and C and draw a parallel line to AC through B. (2 marks)

iv. Write down how many bilateral symmetrical axes can be find in the ABCD rectangle. (2 marks)

v. Complete the figure so that to obtain a bilaterally symmetric figure. (3 marks)



11 Marks

(07)a) Find each of the following sums using the number line.

i. 3+1 (2 marks) ii. 3+ (-4) (2 marks)

b) Find the value.

i. (-2) + (-3) (1 mark)

ii. 2 + (-3) (1 mark)

iii. 2.3 + (-4.3) (1 mark)

iv. $\left(\frac{-2}{7}\right) + \frac{1}{7}$ (1 mark)

c) The temperature of Japan is - 5.6 celsius degrees at 4.00 a.m. The temperature is increased by another 8 celsius degrees at 6.00 a.m. Find the temperature of japan in celsius degrees at 6.00 a.m. (3 marks)

11 Marks