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DEPARTMENT OF EDUCATION NORTH CENTRAL PROVINCE

Second Term Test - 2017

Mathematics

Grade
7

පාසලේ නම :- ....

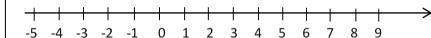ඇතුළත්වීමේ අංකය :- ....

Time: 2hrs

Part I

- Answer all the questions on the paper itself.

01. Simplify, $5 + 6 \times 3$

02. Find the value using a number line

    $(+7) + (-7)$

    -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9

03. Express $\frac{3}{5}$ as a decimal

04. If the statements are correct put (√) or not put (×) in front of the statement.

    I. Number of symmetrical axis in a regular pentagon is greater than the number of symmetrical axis in circular lamina. ( )

    II. The area of the two parts on either side of a axis of symmetry is equal. ( )

05. Write down which decade and the century The A.D 1625 belongs.

i Decade

ii Century

06. Express 2125g in kilograms and grams.

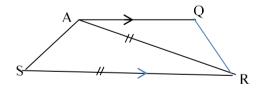07. Find the area of the given diagram.

15 cm

7 cm

08. Simplify, l ml

5   625
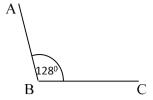
$\underline{\quad\quad 3}$ x

09. Name a pair of parallel lines in the given diagram.
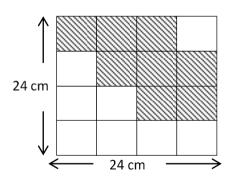

10. Solve, $3x - 7 = 8$

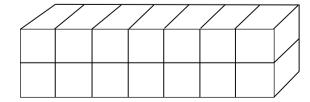11.   Find the value of the reflex angle using the given data.

12.   Represent the elements of the given set in a Venn diagram.

A = {The prime numbers between 0 and 10}

13.   The maximum weight that can be transport in a small lorry is 500kg. Can it transport 18 flour sacks   with 75kg? give reasons.

14.   Find the perimeter of the coloured part of the given diagram.

15.   The treatment committee brought 5kg 800g of cake and the principal brought 2kg 450g of cake for the sports meet. Find the total mass of cake brought for the sports meet.

16.   The given solid is made by some cubes with $1cm^3$, find the volume of the solid.

.17. Now my age is 'y'. My father's age is three times of my age. Write an algebraic expression for my father's age before 10 years.

18. Write the elements of the given set within the curly brackets.

A = {The letters of the word "ANURADHAPURA"}

19. Draw an angle with 65^0 using a protractor and name it as ABC

20. $4l$ of milk are divided among 20 students. If a glass of milk contains $200ml$, How many glasses of milk would a child gets?

Part II

- **Answer five questions including the first question**

- Recall the activity that you have done with your teacher regarding measurements.

01.a) To tile the floor of a room need to know the length and the breadth of the room.

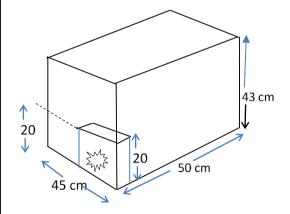   I.   Write the most suitable measuring instrument use to measure the length and the breadth.

                             (1 mark)

    II.   Write two measuring units of length.   (2 marks)

    III.   If the length of the room is 7.2m and the breadth is 6m. Find the perimeter of the room in cm^2 (2 marks)

    IV.   Write the length and the breadth in centimeters.   (2 mark)

    V.   Find the area of the room in cm^2 (2 marks)

 b) They decide to tile the above room with $30cm \times 30cm$ size square tiles.

    I.   How many tiles will be needed for the length wise?   (2 marks)

    II.   How many tiles will be needed for the breadth wise?   (2 marks)

    III.   Find the total number of tiles needed to tile the whole room.   (1 marks)

    IV.   If the price of a tile is Rs. 230, find the total price needed to tile the whole room. (2 marks)

02.a) Venura read $^2/_5$ of a book in the first day and $\frac{1}{3}$ of it in the second day.

I.   Find the total part he read in two days.   (3 marks)

II.   What is the fraction he has to read from the whole book.   (2 marks)

III. Write the given fractions in ascending order.   (1 mark)

$$\frac{2}{5} , \frac{1}{3} , \frac{4}{15}$$

b) The mass of two rice sacks donated for the flood are 15kg 750g and 20kg 200g.

I.   Find the total mass of two rice sacks.   (2 marks)

II.   If the total amount of this rice is divided into 5 sacks. What is the mass of rice in one sack?   (3 marks)

03.   The length breadth and the width of a cuboid shaped small box of a certain milk powder are respectively 20cm, 15cm and 5cm.

I.   Find the volume of such one milk packet box.   (2 marks)

II.

The length breadth and width of a large box are 50cm, 45cm and 43cm respectively. Small milk powder boxes are stored according to the above diagram. Estimate the number of boxes stored in the large box.   (5 marks)

III. If 40 glasses of milk can be made by 1 milk powder packet of box, find the number of milk powder packets needed for 1000 students who participate for a work shop. (2 marks)

IV.   If the price of a milk packet is Rs. 350, find the total price of the above milk packets.

(2 marks)

04.a) I. Write 36 as a product of prime factors (2 marks)

II. Find the H.C.F of 36 and 48 (3 marks)

III. A number have the remainder 2, when that number is divisible by 3, 4 and 5. What is the suitable smallest number for that. (2 marks)
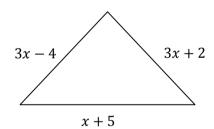
b) I. Expand $2x^2y^3$ (2 marks)

II. If $x = 3$ and $y = 2$ find the value of above expression. (2 marks)

05.a) Rs.p is needed to by 15 mangoes with the price of each is Rs x and 20 Rambutans with the price of each is Rs. 15.

I. Make an algebraic expression including ' p' and 'x' (2 marks)

II. If the value of P is 325, find the price of a mango. (2 marks)

III. Ruwan says that 5 mangoes and 8 Rambutans can buy from Rs.100. Is it true or false? Give reason. (2 marks)

b)

I. Write an algebraic expression for the perimeter of the given triangle. (1 mark)

II. Simplify the above expression. (2 marks)
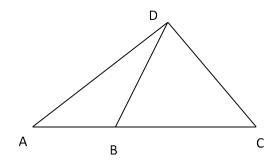
III. Solve the given equation (2 marks)

$6x + 3 = 21$

06.

In the given diagram.

I.   Name an obtuse angle.   (1 mark)

II.   Measure and write the angle $A\hat{B}D$ (1 mark)

III. Measure and write the angle $D\hat{B}C$ (1 mark)

IV.   Obtain the value of $A\hat{B}D + D\hat{B}C$ (1 mark)

b) I.   Draw a circle with the radius of 4cm and name the center as 'O'   (2 marks)

    II.   Draw a diameter in the circle and name it as 'XY'   (1 marks)

    III. Draw another circle with the radius of 4cm by getting $'X'$ as the center.   (1 mark)

    IV.   Name one intersecting point as 'P' and draw the triangle XOP (2 mark)

    V.   According to the length of the sides, what is the type of the triangle XOP ? (1 mark)