Southern Provincial Department of Education

Year End Test - 2018

Mathematics

Grade7

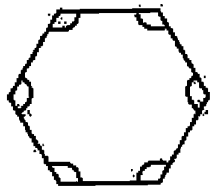
Name / Index No. ..... Time - 2 hours

Paper I

- **Answer all the questions on this question paper it self.**

(01) S = {Galle, Matara, Hambanthota }
Write the above set in terms of a common property of its elements.

(02) How many axes of symmetry of this plane figure.



(03) Simplify. 48 ÷ 3 + 1

(04) Expand the below powers and find the value.

$2^1 \times 3^2$

(05) The number 342☐ with four digits is divisible by 9 without a remainder. Write two suitable digits for the blank.

(06) Find the H. C. F. of 18, 24, 30

(07) Is the year 2100 a leap year. Give reasons.

(08) Simplify.

(+5.18) + (-7.36)

(09) Find the magnitude of the reflex angle.

(10) Write $3\frac{1}{5}, \frac{1}{2}, \frac{7}{3}$ in ascending order.

(11) Name 2 occasions which you can observe parallel lines in the environment.

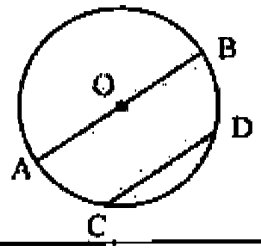
i. ..... ii. .....

(12) If $P = 4x$ and $P = 24$ find the value of x.

(13) Add.

m	cm
4	66
8	96

(14) O is the Center of the circle. Write the special names of the lines OB and CD.



OB = ...

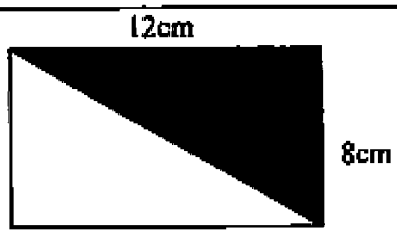
CD = ...

(15) Fill in the blanks.

Tessellation done using two or more shapes is called the ..... and the sum of the angle around a vertex point is ..... right angles.

(16) 15l of water contain in a large container. It is put in to 6 containers equally. Find the volume of water in one container.

(17) Find the area of the shaded region of the rectangle.



(18) Perimeter of a rectangular ground is 340m. If the length of the ground is 95m find the breadth.

(19) Write the ratio between 3 hours and 45 minutes in the simplest form.

(20) 1/4 of a wall is painted. Write the region which is not painted as a percentage and as a decimal.

Paper - II

Write the answers for the 1st question and 4 other questions.

(01) Remind the activity regarding the scale diagram of the school building which you done with your Mathematics teacher.

(a) (i) What are the instruments you used in that activity. (02 marks)

(ii) Write down an occasion which the scale drawings are important. (01 mark)

(iii) Write down the two things we may concern when drawing scale diagrams. (02 marks)

(b) Information about the measurements of a play ground took by a grade 7 student is given below.

length = 80m

breadth = 60m

(i) Draw a rough sketch by mentioning the actual measurements. (02 marks)

(ii) Representing 10m by 1cm draw the scale drawing. (03 marks)

(iii) Find the perimeter of the scale diagram. (02 marks)

(iv) Hence find the perimeter of the play ground. (02 marks)

(v) Find the length of the wire needed to put 3 rounds around the play grounds. (02 marks)

(02) (i) Draw a cartesian plane with the values of x axis and y axis from 0 to +10. (03 marks)

(ii) Plot the points P(2, 2), Q(7, 2), R(9, 5), S(4, 5) on the above Cartesian plane. (02 marks)

(iii) Join them is the order of the letters to obtain a closed figure. (02 marks)

(iv) What is the name of the above figure. (02 marks)

(v) Join RS and write coordinates of two points on that line. (02 marks)

(03) (i) Construct an equilateral triangle of side length 6 cm. (03 marks)

(ii) Name it as ABC. (01 mark)

(iii) Draw a perpendicular to BC from A using the sets square. (01 mark)

(iv) Draw a perpendicular to AC from B using the sets square. (01 mark)

(v) Name the intersection point of the perpendiculars as "O". (01 mark)

(vi) Take "O" as the centre and OA as the radius and draw a circle. (02 marks)

(vii) Find the length of the radius OA. (02 marks)

(04) (a) X = {Triangular numbers from 1 to 10} Represent the set X by writing all the elements. (02 marks)

(b) (i) Write 72 as a product of prime factors and then write it as a power. (03 marks)

(ii) Find L. C. M of 4, 5, 6 (02 marks)

(c) There are 6 vertices and 12 edges in a solid, using the Euler's relation find the number of faces. (02 marks)

(d) Represent 20.054 on an abacus. (02 marks)

(05) (a) Simplify. (02 marks)

kg	g	mg
5	250	5
− 2	50	8

(b) Simplify

(i) (-3) + (+5) = ... (01 mark)

(iii) (-7) + (+8) + (+10) = ... (02 marks)

(c) Simplify. (i) $\frac{3}{8} + \frac{1}{3}$ (02 marks) (ii) $5\frac{1}{2} - 2\frac{2}{5}$ (02 marks)

(d) Simplify. $7 \times (25 - 15) \div 14$ (02 marks)

(06) (a) The 6 faces of a dic are numbered as 1, 2, 3, 4, 5, 6 the die is rolled once.

(i) Write down whether the events given below. is an event which definetely occurs, definitely do not occur or a random event. (01 mark)

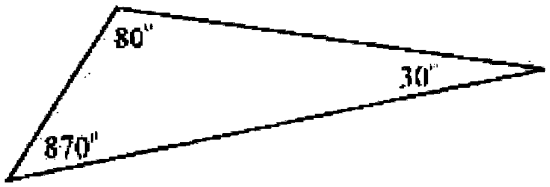
(ii) Getting a prime number, (01 mark)

(iii) Getting a square number, (01 mark)

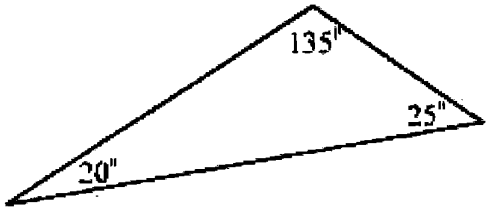
(iv) Getting a number greater then 7. (01 mark)

(b) length, breadth and height of a cuboid shaped container is 50cm, 20em, 10cm respectively. Half of the container is filled with water find the volnme of water in liters in the container. (04 marks)

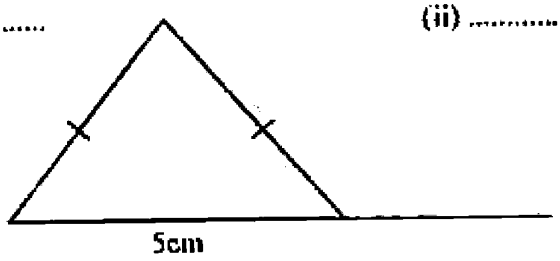
(c) Name the below triangles.



(i) .....



(ii) .....



(iii) ..... (03 marks)

(07) (a) Sarath bought x number of pens Rs. 15.00 each and y number of book Rs. 20, 00 each.

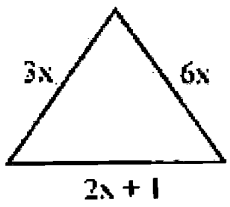
(i) Build up an algebraic expression for the total cost. (02 marks)

(ii) If the cost of the above purchase is "Z" what is the relation among X, Y and Z (02 marks)

(b) (i) When 10 is subtracted from three times a certain, amount which Nimal had the value obtained is Rs 20, Take amount Nimal hod as x and build up an equation. (02 marks)

(ii) Solve the equation and find amount of money Nimal had. (02 marks)

(c)



If the value of x is 2cm Find the perimeter of the triangle. (03 marks)