PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

Second Term Test 2018
MATHEMATICS

Grade 9

Time : **2 ½ hours**
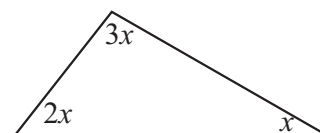
Name / Index No.	Part I	

- **Answer 1st 20 questions on this paper itself.**
  2 marks are given each correct answers from 1 to 20 (02 x 20 = 40)

01. Price of three mathematical instrument boxes are Rs. 450. Find the price of such five boxes.
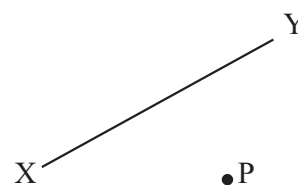
02. Subject *t* of the formulae $v = u + ft$

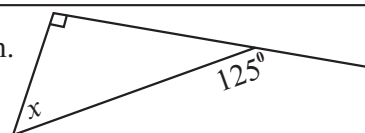03. Find the value of *x* according to the data given in the diagram.

04. (i) What is the smallest whole number when round off to the nearst 10 obtain 170 ?

    (ii) Round off 2455 to nearest 100.

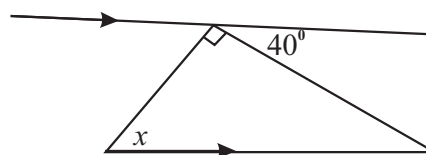05. Construct a perpendicular to straight line XY from P.

06. Write 1010101_{two} as base ten number.

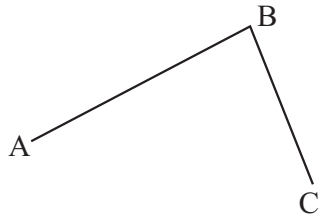07. Find the value of *x* according to the data given in the diagram.

08. Factoric, $x^2 + x - 42$

09. Find the value of *x* according to the data given in the diagram.

10. Construct the angle $B\hat{C}D$ such that $A\hat{B}C = B\hat{C}D$
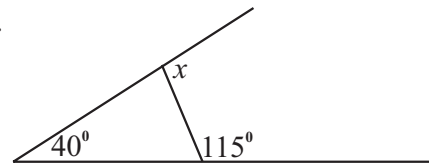

11. 48.5368   (i)   Round off to two decimal places.

               (ii)   Round off to the nearest whole number.

12. What is the amount of Sri Lankan rupees received by a forigner when exchange 200 Singapore Doller in a day which pays Rs. 118 for one singapore doller?

13. Write **6.023×10^4** in general form.

14. Find the value of x according to the data given in the diagram.

15. A student apply keys of a normal calculator to find the value of following mathematical problem. What is the answer he obtain?
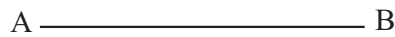

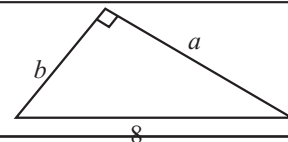16. Write 0.0058 in scientific notation.

17. Find the value of C in the formulae $C = \dfrac{5}{9}(f - 32)$, when $f = 95$.

18. The three anggles of a triangle are at the ration of $1 : 3 : 5$, what is the magnitude of the largest angle?

19. Construct angle, $A\hat{B}C = 60^0$

A ————————————— B

20. Write the Pythagarean relationship for triangle from a, b and 8.
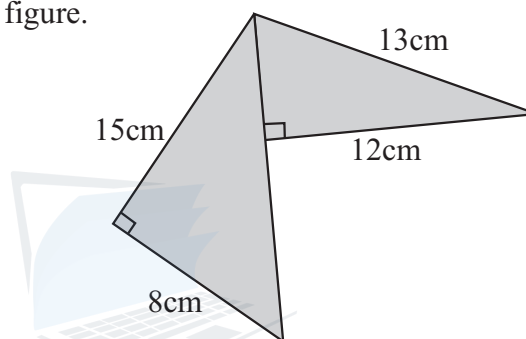
Grade 9   **Second Term Test 2018**   **MATHEMATICS**   **Part II**

* **Write the answer to first one and four other questions.**

(16 marks are given to the first one and 11 given to the each other questions.)

01. (a) Remaind the lesson loci and construction and by Using pair of copasses cm/mm straight edge and showing constructions lines clearly.

    (i)   Construct straight line segment AB = 8cm.   (01m.)

    (ii)   Mark point C such that $A\hat{B}C = 30^0$ and AC = 8cm   (02m.)

    (iii)   Construct perpendicular bisector of AC.   (02m.)

    (iv)   Construct angle bisector of $A\hat{C}B$.   (02m.)

    (v)   Name the intersection point of above two bisectors as P and construct the locus of the point moving 4cm from point P.   (03m.)
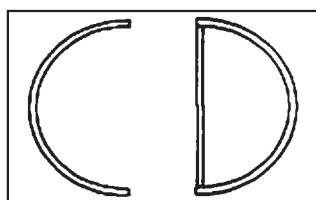
    (b) Find the perimeter of the given figure.   (06m.)

02. Incomplete table of data prepared to draw the graph of the function y = 2x - 3 is given below.

x	-1	0	1	2	3
y	-5	....	-1	....	3

    (i)   Fill in the blanks of the table.   (02m.)

    (ii)   Draw the graph o the function on a suitable Cartesian plane.   (03m.)

    (iii)   Draw the straight line passing through the points (-2, -1) and (1, 5) on the same Cartesian plane above.   (02m.)

    (iv)   Write the gradient and intercept of the graph drawn in the part (iii) above.   (02m.)

    (v)   What is the relationship of the two graphs?   (02m.)

03. Notice board which exhibited in a CD shop is given below. Two letters C and D are made from small glass tube and their curved parts are semicircles of diameter 42cm.

03

(i) Find the length of glass tube used for letter C. (03m.)

(ii) Find the length of glass tube used for letter D. (02m.)

(iii) What is the total amount spend to prepare two letters if Rs. 30 spend for length of 1cm? (03m.)

(iv) Bulbs attached to lighten inside the glass tube from 6 cm gaps. How many bulbs are there inside the tube? (03m.)

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04. (a) Simplify,

(i) $\dfrac{7^5 \times 7^{-8}}{7^{-2}}$ (03m.)

(ii) $\dfrac{(6^2)^3 \times 6^0}{6^4}$ (03m.)

(b) Mr. Asiri has to exchange his Rs. 310 000 into Amarican dollars when he is foreign tour.

If 1 Amarican Doller = 155.00 Sri Lankan rupees,

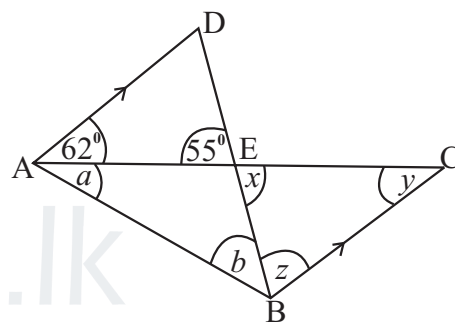(i) How many us dollars he received when exchange money? (03m.)

(ii) He bought a mobile phone in his tour of value 220 us dollars. What is its value from Sri Lankan rupees? (02m.)

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05. Answer to following questions according to the information in the figure.

(i) By giving reasons find the value of angles x, y and z. (06m.)

(ii) Write the relationship between angles x, a and b. (02m.)

(iii) If $a = 28^0$, then show that the straight lines AB and BC are perpendicular to each other. (03m.)

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06. (i) Solve, $3(2x - 3) = 33$ (03m.)

(ii) Solve, $\dfrac{11x + 3}{4} + 8 = 11$ (03m.)

(iii) Solve the pair of simultaneous equations, $2a - 3b = 5$

$5a + 3b = 44$ (05m.)

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07. Danapala bought 80 coconuts each at the price of Rs. 60 and he sold one coconut at the price of Rs. 72.

(i) What is the amount he spends to buy coconuts? (02m.)

(ii) What is the profit he obtains by selling coconuts? (03m.)

(iii) What is profit percentage he obtains by selling coconuts? (03m.)

(iv) What should be the selling price of one coconut to obtain 25% profit? (03m.)