



PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

## Second Term Test 2018

Grade 7

# MATHEMATICS

Time : 2 hours

Name / Index No. \*

### Part I

- Answer all the questions on this paper itself. Each question carries 02 marks.

01. The price of 100 books is Rs. 3750. Find the price of a book.

02. Fill in the blanks,

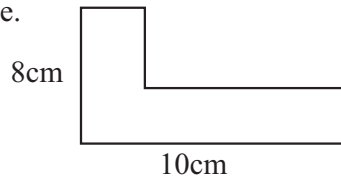
$$\frac{5}{4} = \square \frac{\square}{4}$$

03. Simplify,

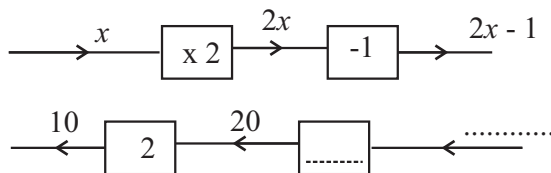
kg	g	mg	
3	200	150	
			x 5

04. Express 0.25 as a fraction.

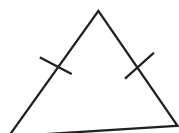
05. Find the perimeter of the given figure.



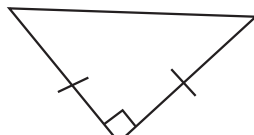
06. Fill in the blanks,



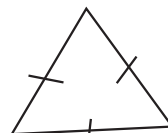
- Answer the 7 and 8 questions by using the following triangles.



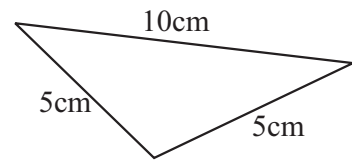
(i)



(ii)



(iii)

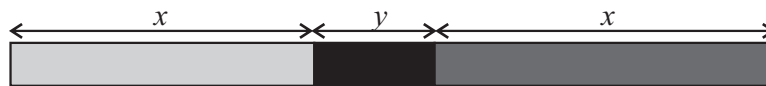


(iv)

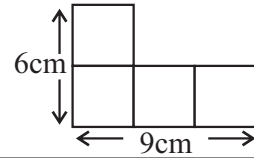
07. Write down the corresponding number, which is not an isosceles triangle.

08. Write down the Corresponding number for right angle triangle.

09. A metal wire is made by Combining three different types of metal wires as shown in the figure. Write an algebraic expression for the total length of the wire.

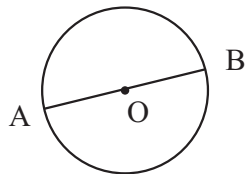


10. Find the area of the following plane figure.



11. Express  $1200ml$  in litres.

12. Fill in the blanks using the given circle.



radius	
diameter	

13. Simplify,

$$\begin{array}{r} l \qquad ml \\ 5 \qquad 300 \\ \hline \qquad \times 5 \\ \hline \hline \end{array}$$

14. A father gives  $\frac{1}{3}$  of the money to his son and  $\frac{3}{5}$  to his daughter. Find the sum of money they both received as a fraction of the money father had.

15. Find the volume of a cube of side length 5cm.

16. Find the value of  $3x - y$ , when  $x = 2$  and  $y = 1$ .

17. Write the fractions  $\frac{3}{10}$ ,  $\frac{1}{5}$ ,  $\frac{1}{2}$  in ascending order.

18. Simplify,

$$\begin{array}{r} m \qquad cm \\ 5 \qquad 20 \\ - 2 \qquad 50 \\ \hline \hline \end{array}$$

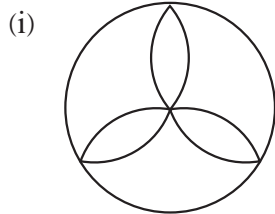
19. How many  $20ml$  bottles can be filled with  $2l$  of honey?

20. Simplify,  $3 \frac{1}{7} + 5 \frac{2}{7}$

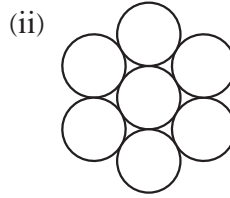
- Answer first Question and four other Questions.

(First Question Carries 16 marks and other Questions Carry 11 marks for each)

01. (a) Create these circle designs using a pair of compasses and a pencil.



(03m.)



(03M.)

- (b) (i) Draw a circle of radius 5cm and name the centre as "O". (02M.)  
 (ii) Mark two points "A" and "B" to obtain the diameter AB. (02M.)  
 (iii) Write down the name used to define "OA". (02M.)  
 (iv) Mark a point "C" on the circle and Construct the ABC triangle. (02M.)  
 (v) According to the magnitude of  $\hat{ACB}$ , write a name for this triangle. (02M.)

02. (a) If a man gives  $\frac{3}{7}$  of his land to his son,  $\frac{1}{3}$  to his daughter and the remaining amount to his wife.

- (i) What is the fraction of the land his son and daughter received? (03M.)  
 (ii) Find the fraction of the land his wife received. (02M.)

(b) Simplify,

- (i)  $5\frac{1}{2} + 1\frac{1}{2} + \frac{5}{8}$  (04M.) (ii)  $7\frac{1}{10} - 2\frac{3}{5}$  (02M.)

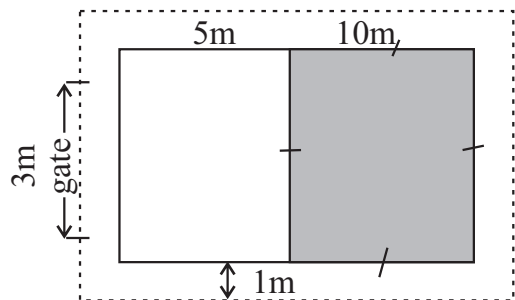
03. (a) The length of a rectangle is 5cm more than its breadth.

- (i) Write an algebraic expression for the length of the rectangle by taking its breadth as  $x$  cm. (03M.)  
 (ii) Find the perimeter of this rectangle in terms of  $x$ . (03M.)

- (b) (i) Simplify,  $6x - 4x + 8x$  (02M.)  
 (ii) Find the value of  $5x + 2y$ , when  $x=2, y=-3$ . (03M.)

04. The picture shows the rough diagram of the floor plan of a building. The dotted line indicates a metal fence around the building.

- (i) Find the area of the shaded part. (02M.)  
 (ii) How many times is the shaded part larger than the non shaded part? (03M.)  
 (iii) Find the length and breadth of the fence. (02M.)  
 (iv) If a metal wire is drawn around the fence 5 times, find the total length of wire needed. (04M.)



05. (a) The price of an apple is Rs. 40 more than the price of a mango.
- Find the price of an apple by taking the price of a mango as Rs.  $x$ . (02M.)
  - If the total price of an apple and a mango is 80 rupees, construct a formula in terms of  $x$  and find the value of  $x$ . (05M.)
- (b) The price of a pencil is Rs.  $x$ . If a person paid "T" amount of money to buy "n" amount of pencils.
- Construct a formula for T in terms of n and  $x$ . (02M.)
  - Find the value of T, when  $x = 5$  and  $n = 8$ . (02M.)

06. (a) The given table indicates the amount of milk collected at a center of collection on a certain day.

No of farmers	Collected amount of milk (l)
12	4l
8	3l 750ml
5	8l
5	2l 400ml

- Find the total amount of milk collected on that day. (07M.)
- (b)

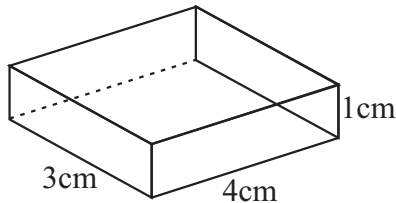


figure 1

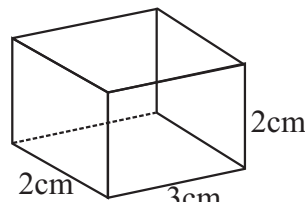


figure 2

- Find the volume of each Cuboid. (02M.)
- What can you conclude about the volumes of the two solids? (02M.)

07. (a) Following table was displayed list in front of a shop, indicating prices of various items.

Item	Price (Rs.)
An exercise book (40 pages)	32.50
An exercise book (120 pages)	53.25
A gel pen	13.00
A Normal pen	9.80

- If a customer bought the following items find the total amount he had to pay. (06M.)

Exercise books (40 pages) 10  
 Exercise books (120 pages) 10  
 Gel pens 02  
 Normal pens 03

- Write  $\frac{2}{5}$  as a decimal number. (02M.)
- Simplify,

$$5.6 \quad 4 \quad (02M.)$$

$$6.023 \times 100 \quad (01M.)$$

## Answer Sheet

## Part I

## Part II

01.	Rs. 37.50 $\frac{3750}{100}$	01	02	01.	(a) (i) Create circle design (ii) Create circle design (b) (i) Drawing a circle Naming the centre (ii) Marking the A and B (iii) radius (iv) Marking C point  Completing the ABC (v) $\hat{ACB} = 90^\circ$ right angled triangle		03 03 01 01 02 02 01 01 02
02.	$1\frac{1}{4}$		02				
03.	kg g mg 16 - 750		02				
04.	$\frac{1}{4}$ $\frac{25}{100}$	01	02				01 02
05.	36cm		02	02.	(a) (i) $\frac{3}{7} + \frac{1}{3}$ $\frac{9}{21} + \frac{7}{21}$ $\frac{16}{21}$ (ii) $\frac{5}{21}$ (b) (i) $(5+1) + \frac{1}{2} + \frac{1}{4} + \frac{5}{8}$ $6 + \frac{4}{8} + \frac{2}{8} + \frac{5}{8}$ $6\frac{11}{8}$ $7\frac{4}{8}$ $7\frac{1}{2}$ (or any correct method) (ii) $7\frac{1}{10} - 2\frac{6}{10}$ $5\frac{11}{10} - 2\frac{6}{10}$ $4\frac{5}{10}$ $4\frac{1}{2}$ (or any correct method)	02 01 03 01 01 01 01 01 01	03 01
06.	19, +1		02				
07.	III		02				
08.	II		02				
09.	$2x+y$ $x+y+x$	01	02				01
10.	$36\text{cm}^2$ $9\text{cm}^2$	01	02				01
11.	1.2l		02				
12.	r = OA d = AB		02				01
13.	l ml 26 500		02				01 04
14.	$\frac{14}{15}$ $\frac{1}{3} + \frac{3}{5}$	01	02				01
15.	$125\text{cm}^3$ $5 \times 5 \times 5$	01	02				01 03
16.	5 $3 \times 2 - 1$	01	02				<u>11</u>
17.	$\frac{1}{5}, \frac{3}{10}, \frac{1}{2}$		02	03.	(a) (i) $x+5$ (ii) $2x + 2(x+5)$ $2x + 2x + 10$ $4x + 10$ (b) (i) $2x + 8x$ $10x$ (ii) $5(2) + 2(-3)$ $10 + (-6)$ 4		03 03 01 01 01 01 01
18.	m cm 2 70		02				01 02
19.	100		02				01
20.	$8\frac{3}{7}$		02				01 03
			<u>40</u>				<u>11</u>

Answer Sheet

04.	<p>(a) (i) <math>10 \times 10</math> <math>100\text{m}^2</math></p> <p>(ii) <math>5 \times 10</math> <math>50\text{m}^2</math> two times</p> <p>(iii) Length 17m breadth 12m</p> <p>(iv) <math>2 \times 17 + 2 \times 12</math> <math>34 + 24</math> 58 <math>58 - 3 = 55</math> <math>55 \times 5 = 275\text{m}</math></p>	<p>01 01 02 01 01 01 03 01 01 02 01 01 01 01 04 <u><u>11</u></u></p>		<p>07. (a) (i) <math>32.50 \times 10 = 325.00</math> <math>53.25 \times 5 = 266.25</math> <math>13 \times 2 = 26.00</math> <math>9.80 \times 3 = 29.40</math> <math>= \underline{\underline{646.65}}</math> Rs. 646.65</p> <p>(b) (i) <math>\frac{4}{10} = 0.4</math></p> <p>(ii) 1.4 602.3</p>	<p>02 02 01</p>	<p>06 <u><u>11</u></u></p>
05.	<p>(a) (i) <math>x + 40</math></p> <p>(ii) <math>x + x + 40 = 80</math> <math>2x + 40 - 40 = 80 - 40</math> <math>\frac{2x}{2} = \frac{40}{2}</math> <math>x = 20</math></p> <p>(b) (i) <math>T = n \times x</math></p> <p>(ii) <math>T = 8 \times 5</math> <math>T = 40</math></p>	<p>02 01 02 01 01 05 02 01 02 <u><u>11</u></u></p>				
06.	<p>(a) (i) <math>12 \times 4 = 48\text{l}</math> <math>3\text{l } 750\text{ml} \times 8</math> <math>30\text{l } 000\text{ml} = 30\text{l}</math> <math>5 \times 8 = 40\text{l}</math> <math>2\text{l } 400\text{ml} \times 5</math> <math>12\text{l } 000\text{ml} = 12\text{l}</math> <math>\underline{\underline{130\text{l}}}</math></p> <p>(b) (i) Figure 1 <math>3 \times 4 \times 1</math> <math>12\text{cm}^3</math></p> <p>Figure 2 <math>2 \times 3 \times 2</math> <math>12\text{cm}^3</math></p> <p>(ii) equal</p>	<p>01 02 01 02 01 07 01 01 02 02 <u><u>11</u></u></p>				