



PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

First Term Test 2018

Grade 07

Mathematics

Time : 2 hours

Name / Index No.

Part I

- Answer all questions on this paper itself.
- Each question carries 2 marks.

01. Fill in the blanks.		Number	Divisible by 2	Divisible by 3	Divisible by 6
(i)	42	.....	Yes	Yes	Yes
(ii)	698	Yes	.....	.....	No

02. Pathum's date of birth is 2010-04-17. Find his age on 2018-03-02.

03. Name the parallel lines of the figures given below.

04. Using the knowledge of angles fill in the blank cages.

Acute angle	+	.....	=	Obtuse angle
.....	+	Right angle	=	Straight angle

05. Write in index notation,
 $a \times a \times b \times b \times b$

06. Complete the figure given below so that to obtain a bilaterally symmetric figure.

07. Evaluate.
 $5 \times 4 - 4 =$

08. Find the L.C.M. of the numbers given below.
32, 48

09. When $x = 3$, Find the value of $2x^2$.

10. Write the second and the third multiple of 6.

11. Write the first date (Year, month and day) of 21st century.

12. Evaluate,

$$(-3) + 8$$

13. Denote the set of letters of the word 'SRILANKA' in a Venn diagram.

14. It is needed to cut piece of wires in equal length by using two iron rods of length 15cm and 27cm. Find the length of a piece of wire that is cut.

15. Arrange in ascending order,

$$4, (-5), 8, (-2), 0$$

16. Fill in the blanks using the knowledge of angles.

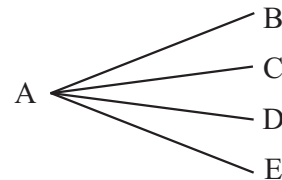
Vertex	Arms	Angle
A	BA, AC	.....
Q	.....	\widehat{PQR}

17. Simplify, $\frac{2}{5} + \frac{1}{5}$

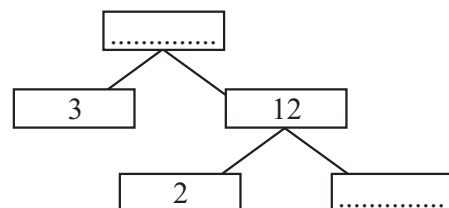
18. Fill in the blank cages.

$$\begin{array}{r} 2 \square \\ 5 \overline{) 10 \square} \\ \underline{10} \\ 0 \square \\ \underline{5} \\ 3 \end{array}$$

19. According to the figure given below, what is the number of acute angles?



20. The diagram used to find the factors of a number is given below. Fill in blanks of it.



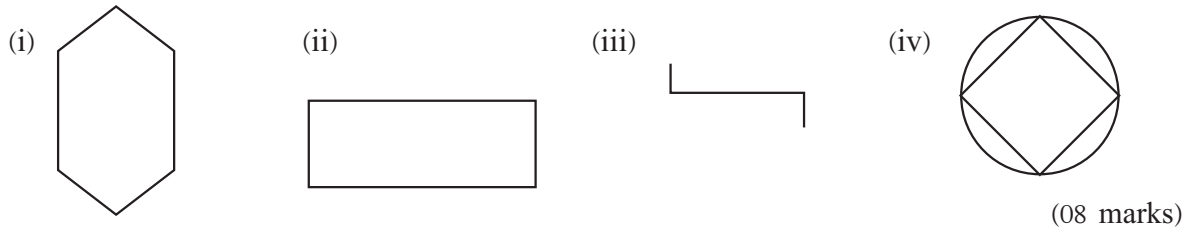
Grade 07

Part - II

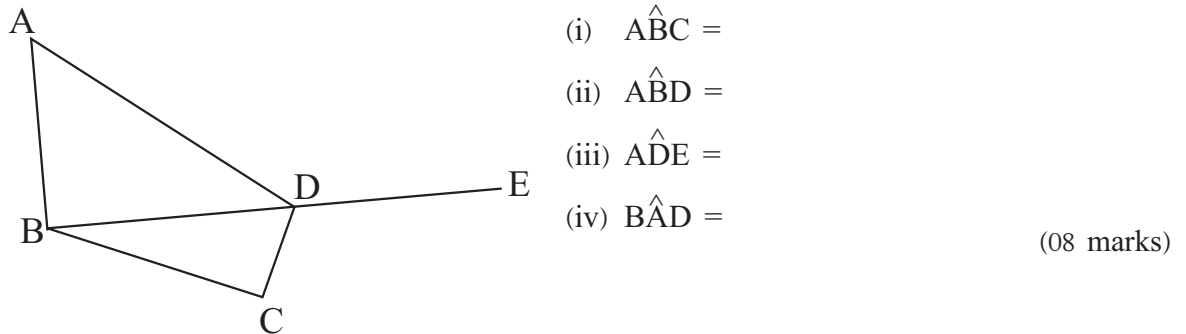
Mathematics

- Answer to the first question and 04 other questions.
- First question carries 16 marks and other questions carry 11 marks.

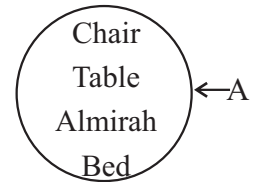
01. (a) Copy the figures having bilateral symmetry on your answer sheet and draw the axes of symmetry.



(b) Write down the magnitude of each angles using the given figure.



02. (a) (i) Write down the set A by listing its elements. (02 marks)
(ii) Write down the set A in terms of a common property of its elements. (02 marks)
(iii) Following is a set represented by a student. Explain whether it is true or false by giving reasons.



$$P = \{t, r, e, e\} \quad (02 \text{ marks})$$

- (b) Write down the set of letters of the word "MATTAKKULIYA" by listing its elements. (02 marks)
(c) Tharusha said that "Rich people in our village" can not be considered as a set. Do you agree with this? Give reasons. (03 marks)

03. (a) (i) Write 45 and 60 as a product of its prime factors. (02 marks)
(ii) Find the H.C.F. of 45 and 60. (02 marks)
(iii) Bells of 3 clocks ring at intervals of 4 minutes, 8 minutes and 12 minutes respectively. If they all ring together at 4.00 a.m, at what time will they ring together again? (03 marks)

- (b) Simplify,
(i) $6 + 3 \times 3 - 1$ (02 marks)
(ii) $5 \times (6 + 4) \div 2$ (02 marks)

04. (a) Fill in the blanks using the suitable numbers or unknown terms.

(i) $3 \times \square \times a \times a \times a = 15a^3$ (01 mark)

(ii) $2 \times \square \times y \times y \times \square = 10y^3$ (02 marks)

(b) Write down $12x^2y^3$ in expanded form. (02 marks)

(c) When $a = 3$ and $b = 5$, find the value of each of the followings.

(i) a^2b^2 (03 marks)

(ii) $2a^2 \times 3b$ (03 marks)

05. (a) Shiromi's sister Nayomi is 2 years, 5 months and 12 days elder to Shiromi. Nayomi's friend Pubudu is 3 years, 2 months and 17 days younger to Nayomi. If Shiromi's date of birth is 2002-08-20,

(i) Find the date of birth of Nayomi. (02 marks)

(ii) Find the date of birth of Pubudu. (02 marks)

(iii) Out of these 3 children whose birthday falls on a leap year? (01 mark)

(b) Simplify

(i) $(-7) + 5 + (-1)$ (02 marks)

(ii) $(-10) + (-10) + 5$ (02 marks)

(iii) $7 + (-3) + (-4)$ (02 marks)

06. (i) Draw any triangle of ABC. (01 mark)

(ii) Using a straight edge and a set square, draw a straight line through C parallel to AB. (02 marks)

(iii) Draw a straight line through A parallel to BC. (02 marks)

(iv) Draw a straight line through B parallel to AC. (02 marks)

(v) Name the intersecting points of above 3 parallel lines as P, Q and R. (02 marks)

(vi) Measure and write down the length of the above pair of a parallel line. (02 marks)

07. (a) Simplify

(i) $\frac{1}{7} + \frac{2}{7}$ (01 mark)

(ii) $\frac{3}{8} + \frac{1}{4}$ (02 marks)

(b) (i) Draw a number line having numbers from -6 to +5. (02 marks)

(ii) Using the above number line find the value of $4 + (-9)$. (03 marks)

(c) Fill in the blanks using the symbols $<$ and $>$.

(i) $(-2) \dots\dots 0$ (01 mark)

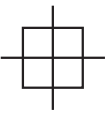
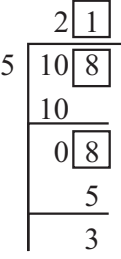
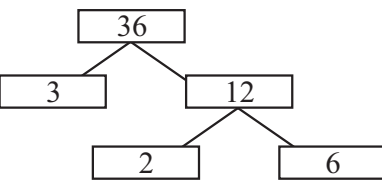
(ii) $(-8) \dots\dots (-3)$ (01 mark)

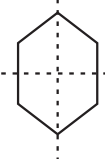
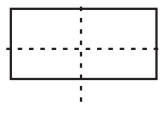
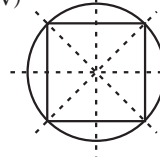
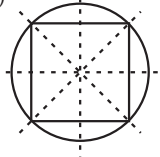
(iii) $(-6) \dots\dots (+5)$ (01 mark)

Answer Sheet

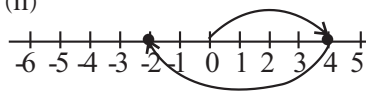
Part I

Part II

01.	<table border="1"> <thead> <tr> <th>Number</th> <th>Divisible by 2</th> <th>Divisible by 3</th> <th>Divisible by 6</th> </tr> </thead> <tbody> <tr> <td>(i) 42</td> <td>...Yes...</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>(ii) 698</td> <td>Yes</td> <td>...No....</td> <td>No</td> </tr> </tbody> </table>	Number	Divisible by 2	Divisible by 3	Divisible by 6	(i) 42	...Yes...	Yes	Yes	(ii) 698	Yes	...No....	No	01	
Number	Divisible by 2	Divisible by 3	Divisible by 6												
(i) 42	...Yes...	Yes	Yes												
(ii) 698	Yes	...No....	No												
02.	08 years 01 month 15 days	01	02												
03.	AB DE	01	02												
04.	Right angle / Acute angle Right angle	01	02												
05.	$a^2 \times b^3$	01	02												
06.		01	02												
07.	16	01	02												
08.	96	01	02												
09.	18 2×3^2	01	02												
10.	12, 18	01	02												
11.	2001 - 01 - 01	01	02												
12.	5	01	02												
13.	{S, R, I, L, A, N, K}	01	02												
14.	3cm	01	02												
15.	(-5), (-2), 0, 4, 8	01	02												
16.	\hat{BAC} PQ, QR	01	02												
17.	$\frac{3}{5}$	01	02												
18.		01	02												
19.	06 Acute angles	01	02												
20.		01	02												
			40												

01.	<p>(a) (i) </p> <p>(ii) </p> <p>(iii) </p> <p>(iv) </p>	01	02	2x4	08
	(b) Measuring angles			2x4	08
					16
02.	<p>(a) (i) {chair, table, almirah, bed}</p> <p>(ii) {Furnitures}</p> <p>(iii) M = {t, r, e}</p>	01	02	02	02
	<p>(b) (i) {M, A, T, K, U, L, I, Y}</p> <p>(ii) Yes. For a correct answer</p>	01	02	03	03
					11
03.	<p>(a) (i) $45 = 3 \times 3 \times 5$ $60 = 2 \times 2 \times 3 \times 5$</p> <p>(ii) 15</p> <p>(iii) 15</p>	01	02	02	02
	<p>(b) (i) $6 + 9 - 1$ 14</p> <p>(ii) $5 \times 10 - 2$ 5×5 25</p>	01	02	02	03
					11
04.	<p>(a) (i) 5</p> <p>(ii) 5 ; y</p>	01	02	02	02
	<p>(b) $2 \times 2 \times 3 \times x \times x \times y \times y \times y$</p> <p>(c) (i) $3^2 \times 5^2$ 9×25 225</p> <p>(ii) $2 \times 3^2 \times 3 \times 5$ $2 \times 9 \times 15$ 270</p>	01	02	03	03
					11

Answer Sheet

05.	<p>(a) (i) $2002 - 08 - 20$ $- 2 - 05 - 12$ <hr/> $2000 - 03 - 08$</p> <p>(ii) $2000 - 03 - 08$ $+ 3 - 02 - 17$ <hr/> $2003 - 05 - 25$</p> <p>(iii) Nayomi</p> <p>(b) (i) $-2 + -1$ -3</p> <p>(ii) $-20 + 5$ -15</p> <p>(iii) $7 + (-7)$ 0</p>	02 02 01 02 02 02	<u>11</u>	
06.	<p>(i) Drawing the triangle ABC</p> <p>(ii) Drawing the parallel line</p> <p>(iii) Drawing the parallel line</p> <p>(iv) Drawing the parallel line</p> <p>(v) Naming intersecting points</p> <p>(vi) Measuring the length of two sides.</p>	02 02 02 02 02 01	<u>11</u>	
07.	<p>(a) (i) $\frac{3}{7}$</p> <p>(ii) $\frac{3}{8} + \frac{2}{8}$ $\frac{5}{8}$</p> <p>(b) (i) Drawing the number line</p> <p>(ii)</p>  <p>-2</p> <p>(c) (i) $-2 < 0$</p> <p>(ii) $-8 < -3$ $-6 < +5$</p>	01 02 02 01 01 01	<u>11</u>	