Sri Jayawardanapura Education Zone

Midterm evaluation - 2014

Mathematics Grade 7

Name:..... **Time: 2 hours**

PART I

❖ **Answer all the questions on this paper itself.**

1) Write the digital index of the number 7023.

2) Fill in the blanks.

$27 = 3 \times 3 \times \ldots\ldots = 3^{\ldots\ldots}$

3) Complete the blank using $>$, $<$ or $=$.

(-3) ..... (1)

4) Simplify. $\frac{3}{7} + \frac{5}{14}$

5) Multiply 3.07 × 5

6) Ratio between the weights of two logs is 4:3. If the smallest log weighs 18kg, what is the weight of the biggest log?

7) $\frac{2}{5} = \frac{40}{\square} = \square$ %

Write the suitable numbers for these cages.

8) To which century belongs 152 A.D.

9) Express 3 375mg in the grams and milligrams.

10) Subtract 4m 48cm from 7m35cm.

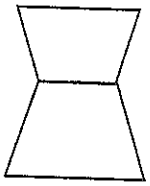
11) The area of a rectangular plot of land is $840m^2$.If its breadth is 20m, find its length of a side.

12) The length, breadth and height of a cuboid shaped box are 8cm, 6cm and 3cm respectively. Find its volume.

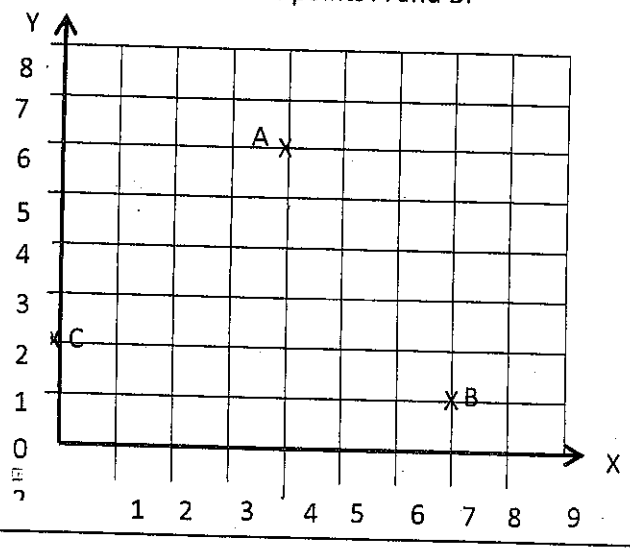
13) There was 3/ 520*ml* water in a container.1/ 275*ml* fruit juice was added to it. Find the total volume of the mixture in that container.

14) Write the suitable number to the blank. $4x + 6y + 5x - 2y = 9x + \ldots\ldots y$

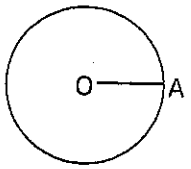
15) How many symmetrical axes can be drawn in this figure?



16) Write the co-ordinates of points A and B.

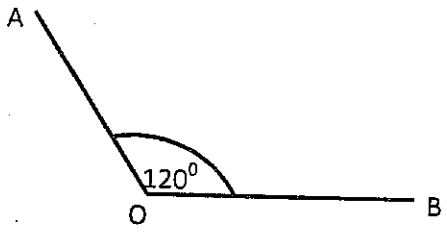


17) Centre of this circle is O .If OA =7cm. Find the length of the longest chord that can be drawn to this circle.



18) If $P\hat{Q}R = 170^0$, what is the type of angle $P\hat{Q}R$.

19) If $A\hat{O}B$ obtuse angle is 120^0, find the value of $A\hat{O}B$ reflex angle.



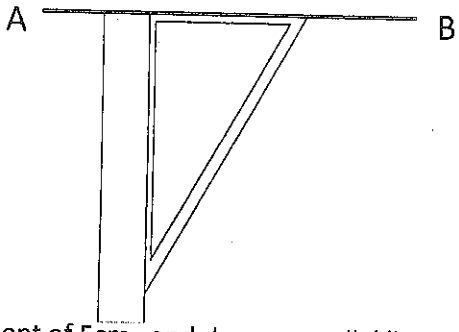
20) If, A = {Digits of the number 37234} represent it in a Venn diagram.

(2×20=40marks)

PART II

Answer the 1st question and other 4 questions. (First question caries 16 marks and other questions carry 11 marks each.)

1. Recall the activity you did to draw parallel lines, in the class room.
   i. Give two examples that where you can see parallel lines in our surroundings.(2 marks)
   ii. Write two features of parallel lines. (2 marks)
   iii. Write two mathematical instruments we use to draw parallel lines.(2 marks)
   iv. AB is a straight line. A step of drawing a parallel line to AB is as follows, explain the next step. (3marks)



   v. Draw AB line segment of 5cm and draw a parallel line to AB, 3cm away from it. (3 marks)
   vi. How many such parallel lines can be drown to AB. (2 marks)
   vii. Name the parallel lines you drew as CD. State the parallel lines symbolically. (2 marks)

2. A price list is shown associating algebraic expressions.

Objects	Quantity	Price (Rs)
Pencil	1	y
Pen	1	x
Eraser	1	$\frac{y}{2}$
80 pages book	1	$4x$
Straight edge	1	$2x$
CR book	2	$10y$

   i. Select like terms of "y" (2marks)
   ii. Build up algebraic expressions for the total price of the following and simplify.
      a) A pen, pencil and a straight edge.
      b) 2 erasers and a CR book.
      c) 2 books of eighty pages and 3 straight edges. (2×3 marks)
   iii. If $x = 12$ and $y = 8$, find the total cost we need to buy a pen, pencil and a straight edge. (3 marks)

3. Simplify.

i. $3\frac{4}{5} - 2\frac{3}{10}$ (3marks)

ii. Convert $\frac{7}{25}$ to a decimal (2 marks)

iii. Evaluate

Years	Months	days	
2	08	24	
3	10	15	+

iv.

%	34.28
10	.....
100	.....

(2 marks)

4. (4marks)

i. Draw a line segment AB = 4.5cm (2 marks)

ii. Draw two circles of radius 3cm. A and B are the centers of the circles. (2 marks)

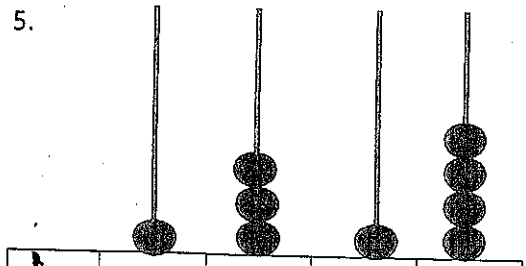
iii. Name intersected points of circles as C and D. (2 marks)

iv. Join A, C, B, D, A and complete ACBDA closed plane figure. (1marks)

v. What is the name of this closed plane figure? (2marks)

vi. Measure and write the magnitude of DÂB. (2marks)

5.



mg	1000	100	10	1
g	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$

i. Express mass represented on abacus in miligrams? (2marks)

ii. Write the above mass in grams? (2marks)

iii. Add

g	mg	
800	975	
250	400	+

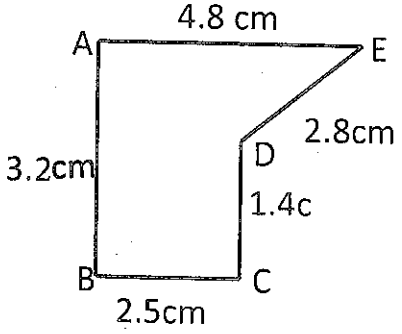
(2 marks)

iv. subtract

Kg	g
7	350
4	850 -

(2 marks)

v. Find the perimeter of the given figure.



(3 marks)

6.

$\frac{1}{2}$	$\frac{4}{5}$	(-5)		(-2)	$\frac{3}{4}$	0.6
(+3)	(+1)	0.28	$\frac{2}{7}$	1.5		$1\frac{1}{3}$

i. Group the above elements into 3 sets.

A → ◯ B → ◯ C → ◯

(3 marks)

ii. State the above sets as descriptions.

A = {.....}

B = {.....}

C = {.....} (3 marks)

iii. B: is a set of letters of the word "ಬಲೂನ"

a. Write set 'B' as a list. (2 marks)

b. Represent it in a Venn diagram. (3 marks)

7. (a) When preparing a mixture of oil cake (kavum) sugar, rice flour and mungpiti mix as 5:3:2 respectively. He makes 10kg mixture.

i. Write sugar, rice flour and mungpiti as fractions of the total. (3 marks)

ii. What is the amount of sugar in this mixture? (2 marks)

(b)

i. When a student drinks some water from a tap, he wastes 250ml of water. If 100 students drink per day. Find the amount of water wasted in liters? (3 marks)

ii. If the cost of one liter of water is Rs.15/= what is the amount to be paid for wasted water? (3 marks)