THE LAIDLAW MEMORIAL SCHOOL AND JUNIOR COLLEGE,KETTI

ENTRANCE EXAM

SUBJECT : MATHEMATICS

CLASS	**: IX**	**DATE**	**:**
READING TIME	**: 10 minutes**	**TOTAL MARKS**	**: 25**
WRITING TIME	**: 1 Hour**	**NO. OF PAGES**	**: 03**

SECTION A (10 X 1 = 10)

Choose the correct answer in this Section:

1. Multiplicative inverse of $(-3) \times \left(-\frac{2}{3}\right)$ *is*
   a. -2
   b. $-\frac{1}{2}$
   c. $\frac{1}{2}$
   d. $\frac{-9}{2}$
2. The cube of 0.2 is
   a. 0.8
   b. 4
   c. 0.008
   d. 0.0008
3. If $B = \{2, 3, 4\}$, $C = \{2, 4, 6\}$, *then, AUB is equal to*
   a. {2, 3}
   b. {2, 3, 4, 6}
   c. {2, 3}
   d. {6}
4. *The simple interest on* $Rs.4800$ *at* 8% *per annum for* 2 *years is*
   a. Rs.768
   b. Rs.5568
   c. Rs.960
   d. Rs.1080
5. If 36 men can do a piece of work in 24 days, then 16 men will do the same work in
   a. 54 days
   b. 45 days
   c. 56 days
   d. 48 days
6. The greatest common factor of $9x^2y, 27xy^2 and\ 45x^2y^2\ is$ .....
7. If $\frac{3x+5}{2x+1} = \frac{1}{3}$, *then the value of* x *is* ……
8. If two adjacent angles of a parallelogram are $(3x+20)^o$ and $(2x + 10)^o$, then the value of x is ----------

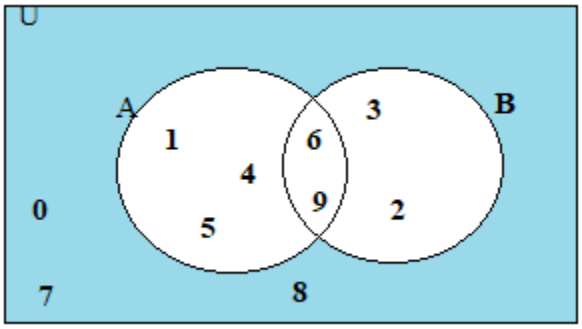
9. A cuboid has …….. vertices, …….. edges and ……. Faces.

10. The gain per cent is ..... %, if the cost price of 10 apples is equal to the selling price of 8 apples.

SECTION B (5 X 3 = 15)
(Attempt any five Questions in this Section)

1. Find the smallest six-digit number which is a perfect square. [3]

2. From the following diagram, [3]



Find

a. $A \cap B$

b. B - A

c. Complement of A

3. Simple interest on a certain sum of money for 3 years at 8% per annum is Rs.10000. What will be the compound interest on that sum at the same rate for the same period? [3]

4. If 16 men can build a wall in 10 days, how long will it take 20 men to build the same wall? [3]

5. Evaluate each of the following using appropriate identities

a. $(x + 2y)^2$ [1]

b. $(2a - 3y)^3$ [2]

6. Find the surface area of a cube whose edge is 7m [3]