

Fr. Agnel School

Waliv, Vasai (E)

1st Unit Test Exam

Std. : 9th

Sub : Mathematics -I

Total Marks : 20

Q. I A Choose the correct alternative answer for each of the following sub questions. (2)

- i) Which of the following is an international number?
 A) 0.17 B) $1.\bar{5}1\bar{3}$ C) $0.\overline{2746}$ D) 0.101001000.....
- ii) Which of the following collections is a set?
 A) Colours of the rainbow B) Tall trees in the school
 C) Rich people in the village D) Easy examples in the book.

Q. I B Solve (2)

- i) Write an example of a rational number.
 ii) Write an example of finite set in the roster method

Q. II A. Complete the following activity: Any 1 (2)

i) Complete the table:

	RULE METHOD	LISTING METHOD
a)	<input type="text"/>	$A=\{2,4,6,8,10\}$
b)	$D=\{y/y \text{ is a colour in the rainbow}\}$	<input type="text"/>
c)	$E=\{x / x \text{ is a letter of the word 'SUM'}\}$	<input type="text"/>
d)	<input type="text"/>	$P=\{2,3,5,7\}$

ii) Classify the following decimal form of the given rational numbers into terminating and non-terminating recurring type.

- i) $\frac{13}{5}$ ii) $-\frac{7}{64}$ iii) $\frac{2}{11}$ iv) $\frac{17}{36}$ in the form of table:

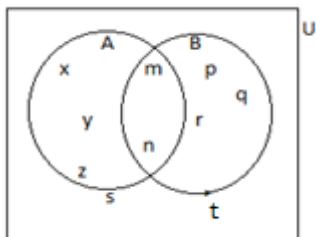
Solution:	Terminating Decimal form	Non-terminating decimal form
i)	<input type="text"/>	i) <input type="text"/>
ii)	<input type="text"/>	ii) <input type="text"/>

Q. II B. Solve any 2 (4)

- i) Write any four rational numbers between 0.5 and -0.4.
 ii) If $n(A)=20$, $n(B)=28$ and $n(A \cup B)=36$ then find $n(A \cap B)$.
 iii) Write the rational number $0.\dot{7}$ in the $\frac{p}{q}$ form.

Q. III A. Complete the following activity (3)

i) Observe the Venn diagram and write the following sets.



1. $A =$
 2. $B =$

- 3. $U =$
- 4. $A' =$
- 5. $B' =$
- 6. $(A \cup B)' =$

Q. III B. Solve any 1

(3)

- i) Prove that $3 + \sqrt{7}$ is irrational number.
- ii) Write with reasons, which is the type of set?
 - a) T is Set of apparatus in laboratory
 - b) A is even prime number.
 - c) $C = \{x | x \in N, x < 2\}$

Q. IV A. Solve any 1

(4)

- i) Pratha and Purvi planted 70 and 90 trees respectively on the occasion of Tree Plantation week. Out of these 25 trees were planted by both of them altogether. How many trees were planted by Pratha or Purvi?
- ii) Write the rational number $\frac{23}{7}$ in decimal form.
