

SHIVAGADHI ENGLISH SCHOOL
First Terminal Examination 2081

Class: 7 **Full Marks: 50**
Subject: Math **Pass Marks:**

Attempt all the questions

1. If $A = \{1, 3, 5\}$, $B = \{2, 4, 6\}$ and $C = \{0, 2, 4, 6, 8\}$.
 - a. Define infinite set with examples. 1
 - b. Write the universal set for all three sets. 1
 - c. Can we write $B \subset C$? Give a reason. 1
2. If $P = \{1, 2, 3, 4, 5\}$ and $Q = \{2, 4, 6\}$
 - a. Write all the subsets of set Q . 1
 - b. What is the relation between sets P and Q ? 1
 - c. Show the above information in a Venn-diagram. 1
3. Sets $P = \{\text{Prime numbers less than 8}\}$, $Q = \{2, 3, 5, 7\}$ and $R = \{\text{natural number between 5 and 6}\}$.
 - a. Define empty set. 1
 - b. Are set P and Q equal sets? justify. 1
 - c. Is the set R the proper subset of P ? 1
4. Observe the following numbers and do the given questions. 1, 2, 4, 3, 9, 8, 10, 25, 36, 27, 24
 - a. Which is the prime as well as even number? 1
 - b. List out the square numbers. 1
 - c. Which is the greatest cube number?
 - d. What are the factors of 24? 2
5. Find the square and square root of 64. 4
6. Find the square and square root of 8. (2+2)
7. The area of a square field is 42025 m^2 . Find the perimeter of the field. (4)
8. a) What do you mean by cube and cube root? 2
b) Find the cube root of 512. 3
9. a) What is the full form of H.C.F? 1
b) Find the HCF of 84 and 108 by using division method. (3)
10. Find the LCM. By using division method : 48, 72, 108. (3)

11. The sum of two integers is +25 and one of them is -10. Find the next integers? (4)

12. Simplify : $(+35) + (-27) - (+14) + (+27) - (+17)$ (4)

13. Find two rational numbers between $\frac{1}{4}$ and $\frac{1}{2}$. (4)

The End