

1. A perfect square number can never have the digits ... at the units place.
2. Find $\sqrt{5625} = \underline{\hspace{2cm}}$.
3. Find the value of $(23)^2$ using column method.
4. Find the value $\sqrt{45} \times \sqrt{20}$.
5. Write a Pythagorean triplet whose smaller member is 6.
6. What is the sum of first n odd natural numbers?
7. A number ending in an odd number of zeros is never a $\underline{\hspace{2cm}}$.
8. If m, n, p are natural numbers such that
 $(m^2 + n^2) = p^2$, then (m, n, p) is called $\underline{\hspace{2cm}}$.
9. Express 49 as the sum of seven odd numbers.
10. Without adding, find the sum.
 $(1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17)$
11. Find the value of $\sqrt{441}$.
12. Write the unit digit of square of 799.

Maximum marks- 24

Maximum time- 35 minutes

1. Is 343 or 243 a perfect cube? (2)
2. Find the cube root of 8000. (2)
3. Find the cube root of 13824. (2)
4. Is 292 a perfect cube? If not find the smallest natural number by which it must be multiplied so that the product is a perfect cube. (4)
5. Show that 1728 is a perfect cube. (2)
6. What is the number whose cube is 216? (2)
7. Find the smallest number by which 68600 must be multiplied to get a perfect cube. (3)
8. Which smallest natural number should divide 1188 so that the quotient is a perfect cube? (3)
9. Is the cube of 4913 an odd number? Why? (2)
10. Is the cube of 132651 an even number? Why? (2)

Maximum time- 40 minutes

Maximum marks- 20

1. Find the square root of 39204. (1)
2. The area of a square plot is 2304 m^2 . Find the side of the square.
(3)
3. Find the greatest four digit number which is a perfect square. (2)
4. Using prime factorization, find the square root of 7056. (2)
5. Is 900 a perfect square? How? (2)
6. Find a Pythagorean triplet corresponding to $n=5$. (2)
7. How many numbers lie between the square of 16 and 17? (2)
8. Find the square root of 6400. (1)
9. Find the smallest square number divisible by each of the number 6, 9 and 15. (3)
10. Using prime factorization, find the square root of 729. (2)