

Quantitative Aptitude for CAT: Mock Test

Questions on Properties on Number System

Question 1:

For an odd number n , find the highest number that always divides $n \times (n^2 - 1)$?

[1] 12

[2] 24

[3] 48

[4] 96

Answer: 24

Question 2:

For every positive integer n , the highest number that $n \times (n^2 - 1) \times (5n + 2)$ is always divisible by is

[1] 6

[2] 24

[3] 36

[4] 48

Answer: 24

Question 3:

On writing first 252 positive integers in a straight line, how many times digit 4 appear?

[1] 50

[2] 52

[3] 54

[4] 55

Answer: 55

Question 4:

If a book has 252 pages, how many digits have been used to number the pages?

[1] 650

[2] 648

[3] 660

[4] None of these

Answer: 648

Question 5:

1 and 8 are the first two positive integers for which $1 + 2 + 3 + \dots + n$ is a perfect square. Which number is the 4th such number?

Answer: 288

Questions on HCF and LCM

Question 1:

Three companies of soldiers containing 120, 192, and 144 soldiers are to be broken down into smaller groups such that each group contains soldiers from one company only and all the groups have equal number of soldiers. What is the least number of total groups formed?

Answer: 19

Question 2:

The numbers 2604, 1020 and 4812 when divided by a number N give the same remainder of 12. Find the highest such number N.

Answer: 48

Question 3:

The numbers 400, 536 and 645, when divided by a number N, give the remainder of 22, 23 and 24 respectively. Find the greatest such number N.

Answer: 27

Questions on Algebra

Question 1:

For the given pair (x, y) of positive integers, such that $4x - 17y = 1$ and $x < 1000$ how many integer values of y satisfy the given conditions?

- [1] 56
- [2] 57
- [3] 58
- [4] 59

Answer: 59

Question 2:

One year payment to the servant is Rs. 90 plus one turban. The servant leaves after 9 months and receives Rs. 65 and turban. Then find the price of the turban

- [1] Rs.10
- [2] Rs.15
- [3] Rs.7.5
- [4] Cannot be determined

Answer: Rs 10