ONE TWO ACADEMY

STD 10 MATHEMATICS

Topic: Numbers (Ex 2.1 - 2.3)

Total:- 25 marks **Time:- 45 minutes**

Answer the following questions:- **4 x 1 = 4**

1. What are co-prime numbers?
2. Find the least number that is divisible by the first ten natural numbers.
3. Why 7 x5×3x2 + 3 is a composite number?
4. The number of prime factors for any prime number is _____.

Answer any three of the following questions:- **3 x 2 = 6**

5.A man has 532 flower pots. He wants to arrange them in rows such that each row contains 21 flower pots. Find the number of completed rows and how many flower pots are left over.

6. Prove that two consecutive positive integers are always coprime.

7. For what values of natural number n, 4^n can end with the digit 6?

8.Today is Tuesday. My uncle will come after 45 days. In which day my uncle will be coming?

Answer any three of the following questions:- **3 x 5 = 15**

9. Prove that $2^n + 6 \times 9^n$ is always divisible by 7 for any positive integer n using modulo operations.

10. Find the HCF of 252525 and 363636

    (a) by applying the fundamental theorem of arithmetic.

    (b) By using Euclid's Division Algorithm.

11. Prove that the square of any integer leaves the remainder either 0 or 1 when divided by 4.

12. Find the H.C.F of 396, 504, 636.

All the Best