



**ACADEMIC YEAR 2022-23**

**Grade: X**

**Subject: MATHEMATICS**

**CH – 1 - REAL NUMBERS - ASSIGNMENT -2**

- 1 The decimal expansion of  $\frac{63}{72 \times 175}$  is
  - (a) terminating
  - (b) non-terminating
  - (c) non termination and repeating
  - (d) an irrational number
- 2 If a and b are positive integers, then  $HCF(a, b) \times LCM(a, b) =$ 
  - (a)  $a \times b$
  - (b)  $a + b$
  - (c)  $a - b$
  - (d)  $a/b$
3. Write an irrational number between  $\frac{1}{4}$  and  $\frac{1}{3}$  ..
4. Prove that  $\frac{4\sqrt{3}}{3}$  is irrational.
5. Find the LCM and HCF of 15, 18 and 45 by prime factorisation method.
6. If HCF and LCM of two numbers are 4 and 9696, then find the product of the two numbers
- 7 . Prove that  $\sqrt{3} + \sqrt{2}$  is irrational
8. After how many decimal places  $\frac{23}{50}$  will terminate?
9. Find the largest number which divides 2053 and 967 and leaves a remainder of 5 and 7 respectively.
10. The length, breadth and height of a room are 825 cm, 675 cm and 450 cm respectively. Find the longest tape which can measure the three dimensions of the room exactly.
11. If  $HCF(6, a) = 2$  and  $LCM(6, a) = 60$  then find the value of a.
12. In a morning walk, three persons step off together and their steps measure 40 cm, 42 cm and 45 cm, respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps?
13. Without actual division find whether the rational number  $\frac{14}{2^3 \times 5^2 \times 7}$  has a terminating or a non-terminating decimal.

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