

CLASS X – MATHEMATICS – CHAPTER 01

REAL NUMBER

Name:

Date:

CHOOSE THE CORRECT OPTION FROM QUES 1 TO 10

Q01. $7 \times 11 \times 13 \times 15 + 15$ is a

- (a) Composite number (b) Whole number (c) Prime number (d) None of these

Q02. For what least value of 'n' a natural number, $(24)^n$ is divisible by 8?

- (a) No value of n is possible (b) -1 (c) 1 (d) 0

Q03. The sum of a rational and an irrational is

- (a) Rational (b) Irrational (c) Both (a) & (c) (d) Either (a) or (b)

Q04. HCF of two numbers is 113, their LCM is 56952. It one number is 904. The other number is:

- (a) 7719 (b) 7119 (c) 7791 (d) 7911

Q05. If HCF of two numbers is 1, the two number are called relatively _____ or _____

- (a) Prime, co-prime (b) Composite, prime (c) Both (a) and (b) (d) none of these

Q06. The smallest composite number is:-

- (a) 1 (b) 2 (c) 3 (d) 4

Q07. $(2 + \sqrt{5})$ is

- (a) rational (b) irrational (c) An integer (d) Not real

Q08. 2.35 is

- (a) a terminating decimal number (b) a rational number
(c) an irrational number (d) Both (a) and (b)

Q09. 1.2348 is

- (a) an integer (b) an irrational number
(c) a rational number (d) None of these

Q10. p is a

- (a) rational (b) irrational
(c) both (a) & (b) (d) neither rational nor irrational

DCA CLASSES

- Q01.** Use Euclid's division algorithm to find the HCF of 4052 and 12576.
- Q02.** Given that HCF of two numbers is 23 and their LCM is 1449. If one of the numbers is 161, find the other.
- Q03.** Find the greatest of 6 digits exactly divisible by 24, 15 and 36.
- Q04.** 144 cartoons of coke can and 90 cartoons of Pepsi can are to be stacked in a canteen. If each stack is of the same height and is to contain cartoons of the same Drink. What would be the greater number of cartoons each stack would have.
- Q05.** Find HCF and LCM of 2496 and 1872 by the prime factorization method.
- Q06.** Prove that the difference and quotient of $(3 + 2\sqrt{3})$ and $(3 - 2\sqrt{3})$ are irrational.
- Q07.** Prove that $(3 - \sqrt{5})$ is irrational.
- Q08.** Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.
- Q09.** A shop keeper has 120 litres of petrol, 180 litres of diesel and 240 litres of kerosene. He wants to sell oil by filling the three kinds of oils in tins of equal capacity. What should be the greatest capacity of such a tin.
- Q10.** Prove that $\sqrt{7}$ is not a rational number.
- Q11.** Find the HCF of 52 and 117 and express it in form $52x + 117y$, then find the value of x and y .
- Q12.** If the HCF of 408 and 1032 is expressible in the form $1032 \times 2 + 408 \times p$, then find the value of p .
- Q13.** Three alarm clocks ring at intervals of 25, 27 and 32 minutes respectively. If they start ringing together, after how much time will they next ring together?
- Q14.** Two brands of chocolates are available in packs of 24 and 15 respectively. If I buy an equal number of chocolates of both kinds, what is the least number of boxes of each kind I would need to buy?
- Q15.** Three bells toll at intervals of 24 min, 28 min and 36 min respectively. If they toll together at 9am, after how many minutes do they toll together again, at the earliest?
- Q16.** There are 44 boys and 32 girls in a class. These students arranged in rows for a prayer in such a way that each row consists of only either boys or girls, and every row contains an equal number of students. Find the minimum number of rows in which all students can be arranged.
- Q17.** The length, breadth, and height of a room are 8 m 50 cm, 6 m 25 cm and 4 m 75 cm respectively. Find the length of the longest rod that can measure the dimensions of the room exactly.
- Q18.** Find the largest number which divides 70 and 125 leaving remainder 5 and 8 respectively.
- Q19.** If the sum of LCM and HCF of two numbers is 1260 and their LCM is 900 more than their HCF then, find the product of two numbers.
- Q20.** The sum of LCM and HCF of two numbers is 7380. If the LCM of these numbers is 7340 more than their HCF. Find the product of the two numbers.