CBSE NCERT Based Chapter wise Questions (2025-2026)

Class-X

Subject: MATHEMATICS

Chapter Name : Real Numbers (Chap : 1)

Total – 6 Marks (Expected) : _ [MCQ(2+1 AR)-1 Mark, SA-II(1)-3 Marks]

Level - 1

MCQ Type :

1. The least number that is divisible by all the numbers from 1 to 10 (both inclusive) is

Ⓐ 10 Ⓑ 100 Ⓒ 504 Ⓓ 2520

(Hints : Find LCM)

2. If two positive integers a and b are written as

$a = x^3y^2$ and $b = xy^3$; x, y are prime numbers, then HCF (*a, b*) is

Ⓐ xy Ⓑ xy^2 Ⓒ x^3y^3 Ⓓ x^2y^2

3. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is

Ⓐ 13 Ⓑ 65 Ⓒ 875 Ⓓ 1750

(Hints : Find HCF)

4. If two positive integers p and q can be expressed as

$p = ab^2$ and $q = a^3b$; a, b being prime numbers, then LCM (p, q) is

Ⓐ ab Ⓑ a^2b^2 Ⓒ a^3b^2 Ⓓ a^3b^3

5. Which of the following is rational ?

Ⓐ $\sqrt{6}+\sqrt{9}$ Ⓑ $\sqrt{2}+\sqrt{4}$ Ⓒ $\sqrt{4}+\sqrt{9}$ Ⓓ $\sqrt{3}+\sqrt{5}$

6. If n is any natural number, then which of the following expressions ends with 0 :

Ⓐ $(3 \times 2)^n$ Ⓑ $(4 \times 3)^n$ Ⓒ $(2 \times 5)^n$ Ⓓ $(6 \times 2)^n$

(Hints : The number must contain 2 and 5 both as factors.)

7. If a, b are comprime, then a^2, b^2 are :

Ⓐ Coprime Ⓑ Not coprime Ⓒ Odd numbers Ⓓ Even numbers

8. If least prime factor of a is 3 and least prime factor of b is 7, the least prime factor of (a + b) is :

Ⓐ 2 Ⓑ 3 Ⓒ 5 Ⓓ 11

(Hints : a and b both are odd, so their sum is even)

9. How many prime factors are there in prime factorization of 5005.

Ⓐ 2 Ⓑ 4 Ⓒ 6 Ⓓ 7

(Hints : Use prime factorization method)

10. If the HCF of 85 and 153 is expressible in the form 85n – 153, then value of n is :

Ⓐ 3 Ⓑ 2 Ⓒ 4 Ⓓ 1

(Hints : Find HCF)

ASSERTION & REASON BASED QUESTIONS (Q. 11 – 14)

Directions : In each of the questions given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below :

a. Both A and R are true and R is the correct explanation of A.
b. Both A and R are true but R is not the correct explanation of A.
c. A is true but R is false.
d. A is false but R is true.

11. **Assertion (A) :** The H.C.F. of two numbers is 16 and their product is 3072. Then their L.C.M. = 162.
Reason (R) : If a and b are two positive integers, then H.C.F × L.C.M. = a × b .
Ⓐ a Ⓑ b Ⓒ c Ⓓ d

12. **Assertion (A) :** 2 is an example of a rational number.
Reason (R) : The square roots of all positive integers are irrational numbers.
Ⓐ a Ⓑ b Ⓒ c Ⓓ d

13. **Assertion (A) :** $\sqrt{x}$ is an irrational number, where x is a prime number.
Reason (R) : Square Root of any prime number is an irrational number.
Ⓐ a Ⓑ b Ⓒ c Ⓓ d

14. **Assertion (A) :** $3 \times 5 \times 17 + 19$ is prime number
Reason (R) : $\sqrt{3}$ is irrational.
Ⓐ a Ⓑ b Ⓒ c Ⓓ d

SA-II Type :

15. Prove that $5 - 2\sqrt{3}$ is an irrational number.

(Hints : Assume $5 - 2\sqrt{3} = x$, where x is rational.)

16. Find the greatest number of 6 digits exactly divisible by 24, 15 and 36.

(Hints : Find LCM of 24, 15 and 36 and divide 999999 by the LCM.)

17. During a sale, colour pencils are being sold in packs of 24 each and crayons in pack of 32 each. If you want full packs of both and the same number of pencils and crayons, how many of each would you need to buy ?

(Hints : Find LCM of 24 and 32.)

18. On a morning walk three persons step out together and their steps measure 30 cm, 36 cm, and 40 cm respectively. What is the minimum distance each should so that each can cover same distance in complete step.

(Hints : Find LCM of 30, 36 and 40.)

19. Find the HCF and LCM of the following by applying prime factorisation method : 84, 90 and 120 .

(Hints : Express each number as the product of prime factors)

20. Two tankers contain 850 litres and 680 litres of petrol respectively. Find the maximum capacity of a container which can measure the petrol of either tanker in exact number of times.

(Hints : Find HCF)

ANSWER

1. Ⓓ
2. Ⓑ
3. Ⓐ
4. Ⓒ
5. Ⓒ
6. Ⓒ
7. Ⓐ
8. Ⓐ
9. Ⓑ
10. Ⓑ
11. Ⓓ
12. Ⓒ
13. Ⓐ
14. Ⓓ
15. Ⓓ

16. 999720
17. 4 packs pencils and 3 packs crayon
18. 360 cm
19. HCF = 6 and LCM = 2520
20. 170 litres