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 - 2 (Higher Order)

MCQ Type :

1. Given that HCF (26, 91) = 13, then LCM of (26, 91) is :

Ⓐ 2366 Ⓑ 182 Ⓒ 91 Ⓓ 364

(Hints : LCM = product of two numbers ÷ HCF)

2. Given that HCF (253, 440) = 11 LCM (253, 440) = 253 × R. The value of R is :

Ⓐ 400 Ⓑ 40 Ⓒ 440 Ⓓ 253

(Hints : LCM = product of wo numbers ÷ HCF)

3. If p, q are two prime numbers, then LCM (p, q) is :

Ⓐ 1 Ⓑ p Ⓒ q Ⓓ pq

(Hints : LCM of two prime numbers is their product)

4. 1245 is a factor of the numbers p and q.

Which of the following will always have 1245 as a factor ?

(i) p + q (ii) p × q (iii) p ÷ q

Ⓐ only (ii) Ⓑ only (i) and (ii) Ⓒ only (ii) and (iii) Ⓓ all – (i), (ii) and (iii)

5. Express 875 as the product of its prime factors.

Ⓐ $5^2 \times 7$ Ⓑ $5^3 \times 7$ Ⓒ $5^3 \times 3$ Ⓓ $5^3 \times 3^2$

(Hints : Find the prime factors of 875)

6. Two numbers with 18 as their HCF and 3672 as their LCM are

Ⓐ 216 and 306 Ⓑ 256 and 306 Ⓒ 206 and 316 Ⓓ 162 and 216

7. The total number of factors of a prime number is

Ⓐ 1 Ⓑ 0 Ⓒ 2 Ⓓ 3

8. The ratio of HCF to LCM of the least composite number and the least prime number is :

Ⓐ 1 : 2 Ⓑ 2 : 1 Ⓒ 1 : 1 Ⓓ 1 : 3

9. Two positive numbers have their HCF as 12 and their product as 6336. The number of pairs possible for the numbers, is

Ⓐ 2 Ⓑ 3 Ⓒ 4 Ⓓ 1

(Hints : Two positive numbers are 12a and 12b where a, b are coprime)

10. The LCM of two numbers is 9 time their HCF. The sum of LCM and HCF is 500. The HCF of the two numbers is

Ⓐ 45 Ⓑ 55 Ⓒ 50 Ⓓ 4500

(Hints : Take HCF as x and form the equations)

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) :** $3 \times 5 \times 7 + 7$ is a composite number.

Reason (R) : A composite number has factors one, itself and any other natural number.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

12. **Assertion (A) :** 12^n ends with the digit zero, where n is any natural number.

Reason (R) : Any number ends with digit zero, if its prime factor is of the form $2^m \times 5^n$, where m and n are natural numbers.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

13. **Assertion (A) :** Sum of a rational number and an irrational number is always an irrational number.

Reason (R) : $\left(2+\sqrt{3}\right)+\left(2-\sqrt{3}\right)=4$

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

14. **Assertion (A) :** HCF (23, 37) = 1

Reason (R) : If p and q are prime numbers, then HCF (p, q) = 1.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

SA-II Type :

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

(Hints : Assume $\sqrt{3}+\sqrt{5}$ = x where x is non-zero rational number)

16. Find the largest number which divides 224, 250 and 302 and leaves remainder 3 in each case.

(Hints : Subtract 3 from each and then find HCF)

17. Explain whether the number $3 \times 5 \times 13 \times 46 + 23$ is a prime number or a composite number.

(Hints : 23 is a factor)

18. Show that $\left(\sqrt{3}+\sqrt{5}\right)^2$ is an irrational number.

(Hints : Expand and then assume $8+2\sqrt{15}=x$, where x is rational.

19. Three bells toll at intervals of 12 minutes, 15 minutes and 18 minutes respectively. If they start tolling together, after what time will they next toll together ?

(Hints : Find LCM)

20. Show that 9^n can not end with digit 0 for any natural number n.

(Hints : It contains only prime factor 3).

ANSWER

1. Ⓑ
2. Ⓑ
3. Ⓓ
4. Ⓑ
5. Ⓑ
6. Ⓐ
7. Ⓒ
8. Ⓐ
9. Ⓐ
10. Ⓒ
11. Ⓐ
12. Ⓓ
13. Ⓑ
14. Ⓐ
16. 13
17. Composite number
19. 3 hours