

## CHAPTER-1 | Real Numbers

### QUIZ PART-03

1. The prime factorization of 140 is:

- A.  $2 \times 5 \times 7$   
 B.  $2^2 \times 5 \times 7$   
 C.  $2^3 \times 5 \times 7$   
 D.  $2^4 \times 5 \times 7$  (B)

*Explanation:*  $140 = 2^2 \times 5 \times 7$ .

2. The LCM of 26 and 91 is:

- A. 91  
 B. 26  
 C. 182  
 D. 520 (C)

*Explanation:* The LCM of 26 and 91 is 182.

3. The HCF of 336 and 54 is:

- A. 18  
 B. 9  
 C. 12  
 D. 6 (B)

*Explanation:* The HCF of 336 and 54 is 18.

4. The LCM and HCF of two numbers are 72 and 12 respectively. If one number is 24, the other is:

- A. 36  
 B. 72  
 C. 12  
 D. 96 (A)

*Explanation:* The other number is 36.

5. The prime factorization of 3825 is:

- A.  $3^3 \times 5^2 \times 17$   
 B.  $3^2 \times 5^3 \times 17$   
 C.  $3^2 \times 5^2 \times 17$   
 D.  $2^2 \times 5^3 \times 17$  (A)

*Explanation:*  $3825 = 3^3 \times 5^2 \times 17$ .

6. If  $6^n$  ends with the digit 0 for any natural number  $n$ , then it must be divisible by:

- A. 2  
 B. 3  
 C. 5  
 D. 7 (C)

*Explanation:*  $6^n$  must be divisible by 5 for it to end with 0, but  $6^n$  does not contain the prime factor 5.

7. The LCM and HCF of 510 and 92 are 510 and 92. What is their product?

- A. 47010  
 B. 47000  
 C. 47020  
 D. 47030 (A)

*Explanation:* The product of the LCM and HCF of 510 and 92 is equal to the product of the two numbers, which is 47010.

8. The number  $7 \times 11 \times 13 + 13$  is:

- A. Prime  
 B. Composite  
 C. Irrational  
 D. Fraction (B)

*Explanation:* The number is composite because it is divisible by 13.

9. The number  $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$  is:

- A. Prime  
 B. Composite  
 C. Rational  
 D. Irrational (B)

*Explanation:* The number is composite because it has more than two factors.

10. Sonia and Ravi are driving around a circular field. After how many minutes will they meet again at the starting point?

- A. 72  
 B. 96  
 C. 120  
 D. 144 (B)

*Explanation:* The LCM of their times (18 and 12 minutes) is 36, so they will meet again after 36 minutes.