CHAPTER-5 | Prime Time

QUIZ PART-07

1. Which of these is a set of seven consecutive composite numbers?
   A. 89, 90, 91, 92, 93, 94, 95
   B. 90, 91, 92, 93, 94, 95, 96
   C. 91, 92, 93, 94, 95, 96, 97
   D. 84, 85, 86, 87, 88, 89, 90 (B)

Explanation : 90 to 96 are all composite numbers, so they form seven consecutive composite numbers.

2. Twin primes are two prime numbers with difference:
   A. 1 B. 2
   C. 3 D. 4 (B)

Explanation: Twin primes are pairs of prime numbers whose difference is 2.

3. Which of the following is a twin prime pair?
   A. 9 and 11
   B. 11 and 13
   C. 15 and 17
   D. 21 and 23 (C)

Explanation: 11 and 13 are both prime, and their difference is 2.

4. Which of these is NOT a twin prime pair?
   A. 29 and 31
   B. 41 and 43
   C. 59 and 61
   D. 37 and 41 (D)

Explanation: 37 and 41 are both prime, but their difference is 4, not 2.

5. Is there any prime number whose units digit is 4?
   A. Yes, many
   B. Yes, only one
   C. No
   D. Cannot say (C)

Explanation : Any number ending in 4 is even, so it is divisible by 2 and cannot be prime.

6. A product of prime numbers is always:
   A. prime B. composite
   C. odd D. even (B)

Explanation : A product of prime numbers greater than 1 has more than two factors, so it is composite.

7. Prime numbers have:
   A. no factors B. one factor
   C. two factors D. three factors (C)

Explanation : A prime number has exactly two factors: 1 and itself.

8. Which statement about even numbers is correct?
   A. All even numbers are composite
   B. All even numbers are prime
   C. 2 is the only even prime number
   D. No even number is composite (C)

Explanation : 2 has exactly two factors, so it is prime. Every other even number is divisible by 2 and is composite.

9. Why is the number after any prime greater than 2 always composite?
   A. It is always odd
   B. It is always divisible by 2
   C. It is always divisible by 5
   D. It is always prime (B)

Explanation : Every prime greater than 2 is odd, so the next number is even and therefore divisible by 2.

10. Which statement is true?
    A. Prime numbers do not have any factors
    B. All even numbers are composite
    C. After 2 and 3, the next number after every prime is composite
    D. A number ending in 4 can be prime (C)

Explanation : After 2 and 3, every prime is odd, so the next number is even and composite.