Reader's Sign _____ Date _____

ORANGE

ASSIGNMENT–9

Marks Obtained: _____

Student's Name: _____ Section: _____

Roll Number: _____ Date: _____

A. Multiple Choice Type Questions

Identify the correct answer.

1. The number of distinct prime factors of the smallest 4-digit number is

(*a*) 2 (*b*) 3 (*c*) 4 (*d*) 5

2. The largest number which always divides the product of any two consecutive even numbers is

(*a*) 4 (*b*) 8 (*c*) 12 (*d*) 16

3. Which of the following pairs is co-prime?

(*a*) 14 and 21 (*b*) 15 and 20 (*c*) 12 and 25 (*d*) 18 and 27

4. What is the largest 3-digit prime number?

(*a*) 997 (*b*) 991 (*c*) 993 (*d*) 995

5. If the LCM of two numbers is 180, which of the following cannot be their HCF?

(*a*) 45 (*b*) 60 (*c*) 75 (*d*) 90

6. A number divisible by both 3 and 8 must be divisible by

(*a*) 14 (*b*) 24 (*c*) 48 (*d*) 96

7. What is the sum of the number of primes between 20 to 30 and 40 to 50?

(*a*) 5 (*b*) 6 (*c*) 7 (*d*) 8

8. The largest number that always divides the sum of any three consecutive even numbers is:

(*a*) 2 (*b*) 3 (*c*) 6 (*d*) 12

B. Assertion and Reason Type Questions

In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

(*a*) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

(*b*) Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).

(*c*) Assertion (A) is true but Reason (R) is false.

(*d*) Assertion (A) is false but Reason (R) is true.

9. **Assertion:** Two consecutive odd numbers are always co-prime.

Reason: The HCF of two consecutive odd numbers is 1.

10. **Assertion:** All primes greater than 2 are odd.

Reason: There are infinitely many primes.