

## CHAPTER-5 | Arithmetic Progressions

QUIZ  
PART-14

1. The sum of ₹700 is used for seven prizes, each ₹20 less than the previous one. What is the value of the prizes?

- A. ₹80, ₹60, ₹40, ₹30, ₹20, ₹10, ₹5  
B. ₹100, ₹80, ₹60, ₹40, ₹20, ₹10, ₹5  
C. ₹100, ₹80, ₹60, ₹50, ₹40, ₹30, ₹20  
D. ₹150, ₹120, ₹90, ₹60, ₹30, ₹10, ₹5 (B)

*Explanation:* Total sum is ₹700 with each prize decreasing by ₹20.

2. How many trees will be planted by students if each class plants trees equal to its number (3 sections per class)?

- A. 396  
B. 399  
C. 400  
D. 405 (B)

*Explanation:* The sum of the first 12 terms with 3 sections per class is 399.

3. Total length of a spiral made of 13 semicircles with radii 0.5 cm, 1.0 cm, 1.5 cm,...?

- A. 60.5 cm  
B. 61.5 cm  
C. 62.5 cm  
D. 63.5 cm (C)

*Explanation:* The sum of the lengths of the semicircles is 62.5 cm.

4. How many rows are there and how many logs in the top row for 200 logs stacked as 20, 19, 18,...?

- A. 14 rows, 1 log in the top row  
B. 15 rows, 1 log in the top row  
C. 16 rows, 2 logs in the top row  
D. 17 rows, 3 logs in the top row (B)

*Explanation:* There are 15 rows, and the top row has 1 log.

5. Total distance a competitor runs for 10 potatoes placed 3 meters apart, starting 5 meters from the first?

- A. 120 meters  
B. 130 meters  
C. 140 meters  
D. 150 meters (C)

*Explanation:* The competitor runs a total distance of 140 meters.

6. Sum of first 40 positive integers divisible by 6?

- A. 480  
B. 500  
C. 510  
D. 520 (A)

*Explanation:* The sum is 480 for the first 40 multiples of 6.

7. Sum of the first 15 multiples of 8?

- A. 960  
B. 1040  
C. 1100  
D. 1150 (A)

*Explanation:* The sum is 960.

8. Sum of odd numbers between 0 and 50?

- A. 625  
B. 700  
C. 725  
D. 750 (C)

*Explanation:* The sum of odd numbers between 0 and 50 is 725.

9. First term of an A.P. if the sum is  $4n - n^2$  and  $24n - n^2$ ?

- A. 4  
B. 5  
C. 6  
D. 7 (A)

*Explanation:* The first term is 4.

10. 25th term of the A.P. 3, 8, 13,...?

- A. 118  
B. 120  
C. 125  
D. 130 (B)

*Explanation:* The 25th term is 120.