Wednesday, 08 January 2025

1. In what time will ₹ 8,000, at 3% per annum, produce the same interest as ₹ 6,000 does in 5 years at 4% simple interest?
(A) 5 years
(B) 6 years
(C) 3 years
(D) 4 years

2. A dealer buys an article listed at ₹ 100 and gets successive discounts of 10% and 20%. He spends 10% of the cost price on transportation. At what price should he sell the article to earn a profit of 15%?
(A) ₹ 92.0
(B) ₹ 91.08
(C) ₹ 90.80
(D) ₹ 91.20

3. A conical iron piece having diameter 28 cm and height 30 cm is totally immersed into the water of a cylindrical vessel, resulting in the rise of water level by 6.4 cm. The diameter, in cm of the vessel is:

(A) 35
(B) 32
(C) 3.5
(D) $\dfrac{35}{2}$

4. If $m - 5n = 2$, then what is the value of $(m^3 - 125n^3 - 30\ mn)$?
(A) 8
(B) 7
(C) 9
(D) 6

5. Given that $x^3 + y^3 = 72$ and $xy = 8$ with $x > y$. Then the value of $x - y$ is:
(A) 4
(B) – 4
(C) 2
(D) – 2

Directions (6-10): Study the following table carefully and answer the questions based on it.
The following table shows the distribution of fruit consumption in a school among students.

Distribution of fruits consumption	
Servings of fruits per day	Number of students
0	15
1	10
2	15
3	10
4	8
5	5
6	3
7	3
8	3

6. How many of these students ate fewer than two servings per day?
(A) 15
(B) 40
(C) 25
(D) None of these

7. What percent of these students ate six or more servings per day?
(A) 12.5%
(B) 13%
(C) 10%
(D) 11%

8. How many of these students ate more than two servings but less than six servings per day?
(A) 26
(B) 18
(C) 23
(D) 38

9. What percent of these students ate more than two servings per day and less than seven servings per day?
(A) 36.11
(B) 38
(C) 47
(D) 32

10. What is the number of students who eat more than three servings per day?
(A) 20
(B) 22
(C) 35
(D) 72

1-{A} - 2-{B} - 3-{A} - 4-{A}-5-{C}-6-{C}-7-{A}-8-{C}-9-{A}-10-{B}