



Quantitative Aptitude

1. The lines $2x + y = 5$ and $x + 2y = 4$ intersect at the point:

Ans: (2, 1)

2. The distance between Howrah and New Delhi via Patna is 1440 km, and the distance between Howrah and New Delhi via Gaya is 5% less. Then the distance between the places via Gaya (in km) is:

Ans: 1368

3. The average of five numbers is 140. If one number is excluded, the average of the remaining four numbers is 130. The excluded number is:

Ans: 180

4. Ratio of the Principal and the amount after 1 year is 10:12. Then the rate of interest per annum is:

Ans: 20%

5. The value of the expression $x^4 - 17x^3 + 17x^2 - 17x + 17$ at $x = 16$ is

Ans: 1



6. If toys are bought at ₹ 5 each and sold at ₹ 4.50 each, then the loss is:

Ans: 10%

7. A solid cone of height 9 cm with diameter of its base 18 cm is cut out from a wooden solid sphere of radius 9 cm. The percentage of wood wasted is:

Ans: 75

8. Ravi travels 300 km partly by train and partly by car. He takes 4 hours to reach, if he travels 60 km by train and rest by car. He will take 10 minutes more if he were to travel 100 km by train and rest by car. The speed of the train is:

Ans: 60 km/hr

9. Selling an article at a profit of 5%. Mr. X gets ₹ 150 more than selling it at a loss of 5%. Mr. X purchased the article at:

Ans: ₹ 1500

10. If $\sin 17^\circ = \frac{x}{y}$, then the value of $\sec 17^\circ - \sin 73^\circ$ is:

Ans: $\frac{x^2}{y\sqrt{y^2 - x^2}}$



11. In a cylindrical vessel of diameter 24 cm filled up with sufficient quantity of water, a solid spherical ball of radius 6 cm is completely immersed. Then the increase in height of water level is:

Ans: 2 cm

12. Two equal circles of radius 4 cm intersect each other such that each passes through the centre of the other. The length of the common chord is:

Ans: $4\sqrt{3}$ cm

13. If $A : B$ is $2 : 3$, $B : C$ is $6 : 11$. Then $A : B : C$ is:

Ans: $4 : 6 : 11$

14. One chord of a circle is known to be 10.1 cm. The radius of this circle must be:

Ans: Greater than 5 cm

15. If two-thirds of A is four-fifths of B , then $A : B = ?$

Ans: $6 : 5$

16. The angles of elevation of the top of a tower from two points A and B lying on the horizontal through the foot of the tower are respectively 15° and 30° . If A and B are on the same side of the tower and $AB = 48$ metre, then the height of the tower is:



Ans: 24 metre

17. In $\triangle ABC$, $\angle BAC = 90^\circ$ and $AB = \frac{1}{2} BC$, Then the measure of $\angle ACB$ is:

Ans: 60°

18. ABCD is a cyclic parallelogram. The angle $\angle B$ is equal to:

Ans: 90°

19. The length of the chord of a circle is 8cm and perpendicular distance between centre and the chord is 3cm. Then the radius of the circle is equal to:

Ans: 5cm

20. What is the greatest number which will divide 110 and 128 leaving a remainder 2 in each case?

Ans: 18

21. If $0 < x < \frac{\pi}{2}$ and $\sec x = \operatorname{cosec} y$, then the value of $\sin(x+y)$ is:

Ans: 1

22. If $x - \frac{1}{x} = 5$, then $x^2 + \frac{1}{x^2}$ is:

Ans: 27



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123. Both the end digits of a 99 digit number N are 2. N is divisible by 11, then all the middle digits are:

Ans: 4

24 The true discount on a sum of money due 2 years hence at 5% is ₹ 15. Find the sum.

Ans: ₹ 165

25 The value of $\tan 1^\circ \tan 2^\circ \tan 3^\circ \dots \tan 89^\circ$ is:

Ans: 1

26 If $(2^x)(2^y) = 8$ and $(9^x)(3^y) = 81$, then (x, y) is:

Ans: (1, 2)

27 The product of two numbers is 36 and their sum is 13. The positive difference between the two numbers is

Ans: 5

28 A can do a piece of work in 12 days, B is 50% more efficient than A. In how many days B will finish the same work?

Ans: 8 days

29 Two successive discounts of 5%, 10% are given for an article costing ₹ 850. Present cost of the article is (in ₹):

Ans: 726.25

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