

ARITHMETIC & QUANTITATIVE APTITUDE

- What is the sum of all the three angles in a triangle ?
A) 90° B) 360°
C) 160° D) 180°
- The place value of 7 in the numeral 634721 is:
A) 7 B) 721
C) 700 D) 7000
- $186 \times 186 + 136 \times 136 - 2 \times 186 \times 136 = ?$
A) 2500 B) 6696
C) 3536 D) None of these
- $\frac{(946 + 157)^2 + (946 - 157)^2}{(946 \times 946 + 157 \times 157)} = ?$
A) 1 B) 2
C) 789 D) 1103
- If three-fifth of 60% of a number is 36, the number is :
A) 100 B) 80
C) 75 D) None of these
- By how much is $\frac{3}{4}$ th of 52 lesser than $\frac{2}{3}$ rd of 99 ?
A) 27 B) 33
C) 39 D) None of these
- The L.C.M. of 24, 36 and 40 is :
A) 120 B) 240
C) 360 D) 480
- $1027.05 - 314.005 + 112.25 = ?$
A) 825.095 B) 825.295
C) 825.305 D) 825.395
- If $\frac{x}{y} = \frac{1}{3}$ then $\frac{x^2 + y^2}{x^2 - y^2} = ?$
A) $\frac{-10}{9}$ B) $\frac{5}{4}$
C) $-\frac{5}{4}$ D) $-\frac{5}{3}$
- How many digits are required for numbering the pages of a book having 300 pages ?
A) 299 B) 492
C) 789 D) 792
- $\sqrt{0.00004761} = ?$
A) 0.00069 B) 0.0069
C) 0.0609 D) 0.069
- If 3 is added to the denominator of a fraction, it becomes $\frac{1}{3}$ and if 4 is added to it's numerator, it becomes $\frac{3}{4}$. The fraction is :
A) $\frac{4}{9}$ B) $\frac{3}{20}$
C) $\frac{7}{24}$ D) $\frac{5}{12}$
- Of the three numbers, the sum of first two is 45, the sum of the second and the third is 55 and the sum of the third and thrice the first is 90. The third number is :
A) 30 B) 25
C) 20 D) 35
- "A man is 30 times older than his son. 18 years later, he will be only thrice as old as his son. What is the man's present age?
A) 30 years B) 42 years
C) 45 years D) 40 years
- If $x = y^a$, $y = z^b$ and $z = x^c$, then $abc = ?$
A) 4 B) 3
C) 2 D) 1
- A dishonest dealer claims to sell his goods at the cost price but uses a false weight of 900 gm for 1 kg. What is his gain percent?
A) 10% B) $11\frac{1}{9}\%$
C) 11.25% D) $12\frac{1}{9}\%$

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17. A student who secures 20% marks in a test fails by 30 marks. Another student who secures 32% marks gets 42 marks more than those required to pass. Pass percentage of marks is :
- A) 25% B) 28%
C) 30% D) 33%
18. A man spends ₹ 3500 per month and saves $12\frac{1}{2}\%$ of his income. His monthly income is:
- A) ₹ 4400 B) ₹ 4270
C) ₹ 4000 D) ₹ 3937.50
19. In a mixture of 60 litres, the ratio of milk and water is 2 : 1. If the ratio is to be 1 : 2, the quantity of water to be further added is :
- A) 20 litres B) 30 litres
C) 40 litres D) 60 litres
20. Two pipes can fill a tank in 20 minutes and 30 minutes respectively. If both the pipes are opened simultaneously, then the tank will be filled up in :
- A) 10 minutes B) 12 minutes
C) 15 minutes D) 25 minutes
21. A train is moving with a speed of 180 km/hr. Its speed in m/sec is :
- A) 5 m/sec. B) 30 m/sec.
C) 40 m/sec. D) 50 m/sec.
22. A student walks from his house at the speed of $2\frac{1}{2}$ km/hr and reaches his school late by 6 minutes. Next day, he increases his speed by 1 km/hr and reaches 6 minutes before the school time. How far is the school from his house?
- A) $\frac{5}{4}$ km B) $\frac{7}{4}$ km
C) $\frac{9}{4}$ km D) $\frac{11}{4}$ km
23. If the simple interest for 6 years is equal to 30% of the principal, it will be equal to the principal after:
- A) 10 years B) 20 years
C) 22 years D) 30 years
24. The length of a rectangular plot is $4\frac{1}{2}$ times the breadth. If the area of the plot is 200 sqm, then what is the length?
- A) 25 m B) 20 m
C) 62 m D) 30 m
25. The perimeter of a rectangle is 60 m. If the length is twice its breadth, then its area is:
- A) 160 m^2 B) 180 m^2
C) 20 m^2 D) 100 m^2
26. What number should be subtracted from both the terms of the ratio 15:19 so as to make it as 3:4?
- A) 5 B) 3
C) 4 D) 6
27. If $\frac{1}{8}$ of a pencil is black, $\frac{1}{2}$ of the remaining is white and the remaining $3\frac{1}{2}$ cm is blue, then the total length of the pencil is :
- A) 8 cm B) 9 cm
C) 10 cm D) 11 cm
28. In a garden, there are 10 rows and 12 columns of mango trees. The distance between two trees is 2 metres and a distance of one metre is left from all sides of the boundary of the garden. The length of the garden is :
- A) 22 m B) 24 m
C) 26 m D) 20 m
29. In a division sum, the divisor is 12 times the quotient and 5 times the remainder. If the remainder is 48, then the dividend is:
- A) 4850 B) 4864
C) 4848 D) 4949
30. A certain number when successively divided by 2, 3 and 5 leave remainders 1, 2 and 3 respectively. What is the dividend?
- A) 25 B) 23
C) 21 D) 19
31. A certain number x when divided by 57 leaves a remainder 27. What is the remainder if the numbers x is divided by 19?
- A) 7 B) 8
C) 9 D) 11

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32. How many digits in all are required to write numbers from 1 to 60?
 A) 120 B) 111
 C) 50 D) 91
33. The simplified form of $\left(32^{\frac{4}{5}} + 32^{-\frac{4}{5}}\right)$ is :
 A) 0 B) $16\frac{1}{16}$
 C) 1 D) $\frac{16}{257}$
34. If A : B = 4 : 7, B : C = 7 : 9 and C : D = 9 : 11 then A : D is equal to:
 A) 4 : 11 B) 11 : 4
 C) 4 : 9 D) 9 : 4
35. A man travelled a certain distance by train at the rate of 50 km/hr and come back by running at an average-speed of 8 km/hr. The journey took 2 hours 54 min. What distance did he travelled by train?
 A) 20 km B) 24 km
 C) 16 km D) 32 km
36. A, B and C are three partners in a partnership, A subscribes $\frac{1}{3}$ of the capital and B $\frac{1}{4}$ and C the rest. What is the share of C in the total profit of ₹ 600 ?
 A) ₹ 225 B) ₹ 175
 C) ₹ 275 D) ₹ 250
37. Three pipes A, B and C can fill a cistern in 6 hours. After working at it together for 2 hours. C is closed and A and B fill it in 7 hours more. How many hours will C alone take to fill the cistern?
 A) 10 hours B) 14 hours
 C) 16 hours D) None of these
38. How many seconds will a train 100 metres long take to cross a bridge 150 metres long if the speed of the train is 36 kmph?
 A) 20 B) 22
 C) 25 D) 28
39. A cube of metal, each edge of which measures $\frac{5}{8}$ th of 9 cm weight of each edge of a cube of the same metal which weighs 40 grams?
 A) 2.5 cm B) 0.25 cm
 C) 0.025 cm D) 0.75 cm
40. The price of rice is reduced by 2%. How many kilograms of rice can now be bought for the money which was sufficient to buy 49 kg of rice earlier?
 A) 48 kg. B) 49 kg.
 C) 50 kg. D) 51 kg.
41. A batsman scored 110 runs which included 3 boundaries and 8 sixes. What per cent of his total score, did he make by running between the wickets?
 A) 45% B) $45\frac{5}{11}\%$
 C) $54\frac{6}{11}\%$ D) 55%
42. In an examination, 52% students failed in Hindi and 42% in English. If 17% failed in both the subjects, what percentage of students passed in both the subjects ?
 A) 38% B) 33%
 C) 23% D) 18%
43. The least number, which must be added to 6709 to make it exactly divisible by 9, is
 A) 5 B) 4
 C) 7 D) 2
44. $\frac{10.3 \times 10.3 \times 10.3 + 1}{10.3 \times 10.3 - 10.3 + 1}$ is equal to
 A) 9.3 B) 10.3
 C) 11.3 D) 12.3
45. The greatest number, that divides 122 and 243 leaving respectively 2 and 3 as remainders, is
 A) 12 B) 24
 C) 30 D) 120

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46. The average of runs of a cricket player of 10 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4 ?
 A) 76 B) 70
 C) 4 D) 2
47. The total number of integers between 100 and 200, which are divisible by both 9 and 6, is
 A) 5 B) 6
 C) 7 D) 8
48. The area of a field in the shape of a trapezium measures 1440 m^2 . The perpendicular distance between its parallel sides is 24 m. If the ratio of the parallel sides is 5 : 3, the length of the longer parallel side is
 A) 75 m B) 45 m
 C) 120 m D) 60 m
49. A cube of edge 5 cm is cut into cubes each of edge of 1 cm. The ratio of the total surface area of one of the small cubes to that of the large cube is equal to
 A) 1 : 125 B) 1 : 5
 C) 1 : 625 D) 1 : 25
50. A sum of money at simple interest amounts to ₹ 1,012 in $2\frac{1}{2}$ years and to ₹ 1,067.20 in 4 years. The rate of interest per annum is
 A) 2.5% B) 3%
 C) 4% D) 5%
51. A barrel contains a mixture of wine and water in the ratio 3 : 1. How much fraction of the mixture must be drawn off and substituted by water so that the ratio of wine and water in the resultant mixture in the barrel becomes 1 : 1 ?
 A) $\frac{1}{4}$ B) $\frac{1}{3}$
 C) $\frac{3}{4}$ D) $\frac{2}{3}$
52. ₹ 750 are divided among A, B and C in such a manner that $A : B = 5 : 2$ and $B : C = 7 : 13$, What is A's share?
 A) ₹ 350 B) ₹ 260
 C) ₹ 140 D) ₹ 250
53. A truck covers a distance of 550 metres in 1 minute whereas a bus covers a distance of 33 kms in 45 minutes. The ratio of their speeds is
 A) 4 : 3 B) 3 : 5
 C) 3 : 4 D) 50 : 3
54. The price of an article was increased by $r\%$. Later the new price was decreased by $r\%$. If the latest price was Re.1, then the original price was
 A) Re. 1
 B) ₹ $\frac{1-r^2}{100}$
 C) ₹ $\frac{\sqrt{1-r^2}}{100}$
 D) ₹ $\left(\frac{10000}{10000-r^2}\right)$
55. Which is the smallest 5-digit number that is divisible by 41?
 A) 10045 B) 10004
 C) 10041 D) 10025
56. Which of the following will have the maximum number of divisors?
 A) 99 B) 101
 C) 176 D) 182
57. $792.02 + 101.32 - 306.76 = ?$
 A) 586.58 B) 893.34
 C) 997.11 D) 1200.10
58. $20\frac{1}{2} + 30\frac{1}{3} - 15\frac{1}{6} = ?$
 A) $34\frac{1}{6}$ B) $35\frac{2}{3}$
 C) $35\frac{5}{6}$ D) $45\frac{1}{3}$