323 NN3

Paper – I
Quantitative Abilities

1. If a sum of ₹ 1,170 were distributed among A, B and C in the ratio 2 : 3 : 4, by mistake, in place of $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$, who was benefited most and by how much ?
(A) B, ₹ 270 (B) A, ₹ 280
(C) B, ₹ 220 (D) C, ₹ 250

2. In two blends of mixed tea, the ratios of Darjeeling and Assam tea are 4 : 7 and 2 : 5. The ratio in which these two blends should be mixed to get the ratio of Darjeeling and Assam tea in the new mixture as 6 : 13 is
(A) 35 : 78 (B) 13 : 22
(C) 22 : 35 (D) 26 : 35

3. In a mixture of three varities of tea, the ratio of their weights is 4 : 5 : 8. If 5 kg tea of the first variety, 10 kg tea of the second variety and some quantity of tea of the third variety are added to the mixture, the ratio of the weights of three varieties of tea becomes as 5 : 7 : 9. In the final mixture, the quantity (in kg) of the third variety of tea was
(A) 48 (B) 40
(C) 42 (D) 45

4. Cost of two watches were in a ratio of 16 : 23. The cost of first watch increases by 10% and that of second by ₹ 477. Now the cost of two watches are in a ratio of 11 : 20. The price of the second watch (in ₹) in the beginning was
(A) 1696 (B) 848
(C) 932 (D) 1219

5. Average of 11 numbers is 36, whereas average of 9 of them is 34. If the remaining two numbers are in the ratio of 2 : 3, find the value of the smallest number (between remaining two numbers).
(A) 54 (B) 36
(C) 45 (D) 48

6. The average of 20 numbers is calculated as 35. It is discovered later, that while calculating the average, one number, namely 85, was read as 45. The correct average is
(A) 37.5 (B) 36
(C) 36.5 (D) 37

7. Of three numbers, the first is 4 times the second and 3 times the third. If the average of all the three numbers is 95, what is the third number ?
(A) 130 (B) 57
(C) 76 (D) 60

8. If average of two numbers x and $\frac{1}{x}$ (where $x \neq 0$) is A, what will be the average of x^3 and $\frac{1}{x^3}$?
(A) $4A^3 - 4A$ (B) $4A^3 - A$
(C) $4A^3 - 2A$ (D) $4A^3 - 3A$

9. The average weight of A, B and C is 45 kg. If the average weight of A and B be 40 kg and that of B and C be 43 kg, then the weight (in kg) of B is
(A) 31 (B) 17
(C) 20 (D) 26

FOR ROUGH WORK

10. In a team of 10 persons, nine persons spent ₹ 40 each for their meal and the remaining one spent ₹ 9 more than the average expenditure of all the 10 persons. The total expenditure for their meal was

(A) ₹ 410 (B) ₹ 610
(C) ₹ 510 (D) ₹ 310

11. By selling 20 metres of cloth a man gains the selling price of 4 metres of cloth. Then the gain percent is

(A) 35 (B) 20
(C) 25 (D) 30

12. Pratap buys a watch at $\frac{4}{5}$ of its marked price and sells it for 17% more than its marked price. His profit based on its cost is

(A) ₹ 37 (B) ₹ 17
(C) ₹ 20 (D) ₹ 25

13. The profit obtained by selling an article for ₹ 625 is same as the loss incurred if it is sold for ₹ 545. The price at which it is to be sold to realize a profit of ₹ 65 on the cost price is

(A) ₹ 650 (B) ₹ 660
(C) ₹ 640 (D) ₹ 630

14. Ten articles bought at ₹ 8, and sold at 8 for ₹ 10. Then the gain percent is

(A) 56.25% (B) 55%
(C) 54.75% (D) 57.25%

15. A merchant bought 200 eggs, out of which 38 are broken. He sold the remaining eggs at the rate of ₹ 4.80 per dozen and thus gained 8%. The total investment is

(A) ₹ 45 (B) ₹ 120
(C) ₹ 80 (D) ₹ 60

16. A man sold an article at a gain of 5%. Had he sold it for ₹ 40 more, he would have gained 8%. Then the cost price of the article is

(A) ₹ 12,000 (B) ₹ 8,000
(C) ₹ 6,000 (D) ₹ 10,000

17. 25% of annual salary of A is equal to eighty percent of annual salary of B. Monthly salary of B is 40% of monthly salary of C. Annual salary of C is ₹ 6 lac. What is the monthly salary of A ?

(A) ₹ 64,000 (B) ₹ 56,000
(C) ₹ 60,000 (D) ₹ 62,000

18. Two numbers are less than a third number by 30% and 37% respectively. How much percent is the second number less than the first ?

(A) 3 (B) 7
(C) 10 (D) 4

19. A reduction of 20% in the price of sugar enables a purchaser to obtain 8 kg more for ₹ 160. Then the price per kg before reduction was

(A) ₹ 10 (B) ₹ 4
(C) ₹ 5 (D) ₹ 6

20. Of the 1000 inhabitants in a town 60% are males of whom 20% are literate. If of all the inhabitants, 25% are literate, then what percentage of the females of the town are literate ?

(A) 37.5 (B) 22.5
(C) 27.5 (D) 32.5

21. P and Q starting simultaneously from two different places proceed towards each other at a speed of 20 km/hour and 30 km/hour respectively. By the time they meet each other, Q has covered 36 km more than P. The distance (in km.) between the two places is

(A) 180 (B) 108
(C) 144 (D) 162

22. A man walks from his house at an average speed of 5 km per hour and reaches his office 6 minutes late. If he walks at an average speed of 6 km/h he reaches 2 minutes early. Then the distance of the office from his house is

(A) 12 km (B) 4 km
(C) 6 km (D) 9 km

23. A man can row 15 km per hour downstream and 9 km per hour upstream. The speed (in km/hour) of the boat in still water is

(A) 15 (B) 8 (C) 10 (D) 12

24. A is twice as fast as B, and B is thrice as fast as C is. The journey covered by C in $1\frac{1}{2}$ hours will be covered by A in

(A) 1 hour (B) 10 minutes
(C) 15 minutes (D) 30 minutes

25. A man took some loan from a bank at the rate of 8% compound interest per annum and he repayed the whole amount of the loan by paying ₹ 50,000 and ₹ 62,640 at the end of first year and second year, respectively. The sum of the loan (in ₹) was

(A) 1,50,000 (B) 50,000
(C) 1,00,000 (D) 1,12,640

26. The principal that yields a compound interest of ₹ 420 during the second year at 5% per annum is

(A) ₹ 8,000 (B) ₹ 6,000
(C) ₹ 7,000 (D) ₹ 5,000

27. At the rate of simple interest per annum, the interest on a certain sum of money for 10 years will be $\frac{2}{5}$ part of the amount, then the rate of simple interest is

(A) 7% (B) $4\frac{1}{2}\%$
(C) 5% (D) $6\frac{2}{3}\%$

28. ₹ 16,820 is divided between two brothers of age 27 years and 25 years. They invested their money at 5% per annum compound interest in such a way that both will receive equal money at the age of 40 years. The share (in ₹) of elder brother is

(A) 8,820 (B) 8,000
(C) 8,280 (D) 8,410

SPACE FOR ROUGH WORK

29. Base of a right pyramid is a square whose area is 324 sqm. If the volume of the pyramid is 1296 cu.m., then the area (in m^2) of the slant surface is

(A) 1080 (B) 360
(C) 432 (D) 540

30. If the surface areas of two spheres are in the ratio 9 : 16, then the ratio of their volumes is

(A) 64 : 27 (B) 9 : 16
(C) 16 : 9 (D) 27 : 64

31. The volume of a right circular cone is equal to the volume of a right circular cylinder. The height and the radius of the cylinder are 9 cm and 20 cm respectively. If the height of the cone is 108 cm, then its radius, in cm, is

(A) 20 (B) 10
(C) 12 (D) 14

32. If the area of the base of a cone is increased by 100%, then the volume is increased by

(A) 141% (B) 100%
(C) 200% (D) 182%

33. The length, breadth and height of a wooden box with a lid are 10 cm, 9 cm and 7 cm, respectively. The total inner surface of the closed box is 262 cm^2. The thickness of the wood (in cm.) is

(A) $\frac{23}{3}$ (B) 1
(C) 2 (D) 3

34. Perimeter of an equilateral triangle is equal to the circumference of a circle. The ratio of their areas is

(Use $\pi = \frac{22}{7}$)

(A) $21 : 22\sqrt{2}$ (B) $22 : 21\sqrt{2}$
(C) $22 : 21\sqrt{3}$ (D) $21 : 22\sqrt{3}$

35. A right circular cone and a right circular cylinder have the same base and their heights are in the ratio 2 : 3. The ratio of their volumes will be

(A) 5 : 9 (B) 2 : 9
(C) 1 : 9 (D) 4 : 9

36. A cone, a cylinder and a hemisphere stand on equal bases and have equal heights. The ratio of their volumes is

(A) 1 : 3 : 2 (B) 1 : 2 : 3
(C) 2 : 3 : 1 (D) 2 : 1 : 3

37. From any point inside an equilateral triangle, the lengths of perpendiculars on the sides are 'a' cm, 'b' cm and 'c' cms. Its area (in cm^2) is

(A) $\frac{\sqrt{3}}{3}(a + b + c)$

(B) $\frac{\sqrt{2}}{3}(a + b + c)^2$

(C) $\frac{\sqrt{2}}{3}(a + b + c)$

(D) $\frac{\sqrt{3}}{3}(a + b + c)^2$

38. The area of a circle and a square are same. The ratio of the side of the square to the radius of the circle is

(A) $\sqrt{\pi} : 1$ (B) $1 : \pi$

(C) $2\pi : 1$ (D) $1 : \sqrt{\pi}$

39. ABCD is a square inscribed in a circle of radius r. Then the total area (in square units) of the portions of the circle lying outside the square is

(A) $\pi^2 r\,(r - 7)$ (B) $r^2\,(\pi - 2)$

(C) $\pi\,(r^2 - 4)$ (D) $2\pi\,(r^2 - 1)$

40. The lengths of the two parallel sides of a trapezium are 28 cm and 40 cm. If the length of each of its other two sides be 12 cm, then the area (in cm^2) of the trapezium is

(A) $204\sqrt{3}$ (B) $504\sqrt{3}$

(C) $312\sqrt{5}$ (D) $408\sqrt{3}$

41. The diameters of the internal and external surfaces of a hollow spherical shell are 6 cm and 10 cm respectively. If it is melted and made of solid cylinder of length $\frac{8}{3}$ cm, then the diameter (in cm) of the cylinder is

(A) 16 (B) 7 (C) 10 (D) 14

42. Volume of a metallic cylindrical pipe is 748 cm^3. Its length is 14 cm and external radius is 9 cm. Its thickness is

(Use $\pi = \frac{22}{7}$)

(A) 17 cm (B) 11 cm

(C) 1 cm (D) 7 cm

43. A cylindrical vessel of diameter 24 cm contains some water. If two spheres of radii 6 cm each are lowered into the water until they are completely immersed, then the water level (in cm) in the vessel will rise by

(A) 4 (B) 9

(C) 12 (D) 6

44. If $2x = \sqrt{a} + \frac{1}{\sqrt{a}}$, $a > 0$, then the value of $\frac{\sqrt{x^2 - 1}}{x - \sqrt{x^2 - 1}}$ is

(A) $\frac{1}{2}(a - 1)$ (B) $a - 1$

(C) $a + 1$ (D) $\frac{1}{2}(a + 1)$

45. If a, b, c are real and $a^2 + b^2 + c^2 = 2\,(a - b - c) - 3$, then the value of $a + b + c$ is

(A) 3 (B) 0

(C) -1 (D) 1

46. If $\frac{a + b - c}{a + b} = \frac{b + c - a}{b + c} = \frac{c + a - b}{c + a}$ and $a + b + c \neq 0$, then

(A) $a = b \neq c$ (B) $a \neq b = c$

(C) $a \neq b \neq c$ (D) $a = b = c$

47. If $a = 2 + \sqrt{3}$, then the value of $\frac{a^6 + a^4 + a^2 + 1}{a^3}$ is

(A) 42 (B) 56

(C) 45 (D) 65

SPACE FOR ROUGH WORK

48. If $x = \sqrt{5} + \sqrt{3}$ and $y = \sqrt{5} - \sqrt{3}$, then the value of $x^4 - y^4$ is

(A) 544 (B) $32\sqrt{15}$

(C) $64\sqrt{15}$ (D) 16

49. If $x + y + z = 6$, then the value of $(x-1)^3 + (y-2)^3 + (z-3)^3$ is

(A) $(x-1)(y-2)(z-3)$

(B) $2(x-1)(y-2)(z-3)$

(C) $3(x-1)(y-2)(z-3)$

(D) $3xyz$

50. If $bc + ab + ca = abc$, then the value of $\frac{b+c}{bc(a-1)} + \frac{a+c}{ac(b-1)} + \frac{a+b}{ab(c-1)}$ is

(A) $-\frac{3}{2}$ (B) 1

(C) 0 (D) $-\frac{1}{2}$

51. The graph of $3x + 4y - 24 = 0$ forms a triangle OAB with the coordinate axes, where O is the origin. Also the graph of $x + y + 4 = 0$ forms a triangle OCD with the coordinate axes. Then the area of ΔOCD is equal to

(A) $\frac{2}{3}$ of area of ΔOAB

(B) the area of ΔOAB

(C) $\frac{1}{2}$ of area of ΔOAB

(D) $\frac{1}{3}$ of area of ΔOAB

52. If $\frac{a^2-bc}{a^2+bc} + \frac{b^2-ca}{b^2+ca} + \frac{c^2-ab}{c^2+ab} = 1$, then the value of $\frac{a^2}{a^2+bc} + \frac{b^2}{b^2+ac} + \frac{c^2}{c^2+ab}$ is

(A) -1 (B) 2 (C) 0 (D) 1

53. If $p^4 = 119 - \frac{1}{p^4}$, then the value of $p^3 - \frac{1}{p^3}$ is

(A) 36 (B) 18

(C) 24 (D) 32

54. The sum of the internal angles of a regular polygon is 1440°. The number of sides is

(A) 12 (B) 6

(C) 8 (D) 10

55. ABCD is a trapezium where AD || BC. The diagonal AC and BD intersect each other at the point O. If $AO = 3$, $CO = x - 3$, $BO = 3x - 19$ and $DO = x - 5$, the value of x is

(A) $-8, -9$ (B) 8, 9

(C) $-8, 9$ (D) $8, -9$

56. The distance between the centres of two circles having radii 8 cm and 3 cm, is 13 cm. The length (in cm) of the direct common tangent of the two circles is

(A) 18 (B) 12

(C) 15 (D) 16

57. Chords PQ and RS of a circle, when produced, meet at a point O. If PQ = 6 cm, OQ = 8 cm and OS = 7 cm, then length (in cm) of the chord RS is
(A) 16 (B) 9 (C) 10 (D) 12

58. The point of intersection of the diagonals AC and BD of the cyclic quadrilateral ABCD is P. If $\angle APB = 64°$ and $\angle CBD = 28°$, the measure of $\angle ADB$ is
(A) 56° (B) 28° (C) 32° (D) 36°

59. Three circles of radius 6 cm touches each other externally. Then the distance of the centre of one circle from the line joining the centres of other two circles is equal to
(A) $6\sqrt{2}$ cm (B) $6\sqrt{7}$ cm
(C) $6\sqrt{5}$ cm (D) $6\sqrt{3}$ cm

60. In Δ ABC, AB = AC, O is a point on BC such that BO = CO and OD is perpendicular to AB and OE is perpendicular to AC. If $\angle BOD = 30°$, then measure of $\angle AOE$ is
(A) 75° (B) 30° (C) 45° (D) 60°

61. In an isosceles triangle, if the vertex angle is twice the sum of the base angles, then the measure of the half of the vertex angle of the triangle is
(A) 80° (B) 50° (C) 60° (D) 70°

62. O is the orthocentre of ΔABC. Then $\angle BOC + \angle BAC$ is equal to
(A) 180° (B) 90°
(C) 120° (D) 135°

63. In Δ ABC, the bisector of $\angle BAC$ intersects BC at D and the circumcircle of Δ ABC at E. If AB : AD = 3 : 5, then AE : AC is
(A) 2 : 3 (B) 3 : 5
(C) 5 : 3 (D) 3 : 2

64. If $\sec\theta - \cos\theta = \frac{3}{2}$ where θ is a positive acute angle, then the value of $\sec\theta$ is
(A) 2 (B) 0
(C) $-\frac{1}{2}$ (D) 1

65. If $\tan(5x - 10°) = \cot(5y + 20°)$ the value of $(x + y)$ is
(A) 24° (B) 20°
(C) 15° (D) 16°

66. From an aeroplane just over a straight road, the angles of depression of two consecutive kilometre stones situated at opposite sides of the aeroplane were found to be 60° and 30° respectively. The height (in km) of the aeroplane from the road at that instant, is
(A) $\frac{\sqrt{3}}{4}$ (B) $\sqrt{3}$
(C) $\frac{\sqrt{3}}{2}$ (D) $\frac{\sqrt{3}}{3}$

67. If $\sin\theta + \sin^2\theta = 1$, then the value of $\cos^{12}\theta + 3\cos^{10}\theta + 3\cos^8\theta + \cos^6\theta - 1$ is
(A) 3 (B) 0
(C) 1 (D) 2

68. The base of a triangle is $12\sqrt{3}$ cm and two angles at the base are 30° and 60° respectively. Then the altitude of the triangle is

(A) $10\sqrt{3}$ cm (B) 9 cm
(C) 12 cm (D) 6 cm

69. If $a(\tan\theta + \cot\theta) = 1$, $\sin\theta + \cos\theta = b$ with $0° < \theta < 90°$, then a relation between a and b is

(A) $2a = b^2 - 1$ (B) $2a = b^2 + 1$
(C) $b^2 = 2(a + 1)$ (D) $b^2 = 2(a - 1)$

70. The value of $\tan 11° \tan 17° \tan 79° \tan 73°$ is

(A) 1 (B) $\frac{1}{\sqrt{2}}$
(C) $\frac{1}{2}$ (D) 0

71. If for any acute angle A, $\sin A + \sin^2 A = 1$, then the value of $\cos^2 A + \cos^4 A$ is

(A) 2 (B) 0
(C) –1 (D) 1

72. The value of $(1 + \sec 20° + \cot 70°)(1 - \operatorname{cosec} 20° + \tan 70°)$ is equal to

(A) 2 (B) –1
(C) 0 (D) 1

73. If $0° < A < 90°$, then the value of $\frac{\tan A - \sec A - 1}{\tan A + \sec A + 1}$ is

(A) $\frac{1 - \cos A}{\sin A}$ (B) $\frac{\sin A + 1}{\cos A}$
(C) $\frac{\sin A - 1}{\cos A}$ (D) $\frac{1 - \sin A}{\cos A}$

74. If a certain number of two digits is divided by the sum of its digits, the quotient is 6 and the remainder is 3. If the digits are reversed and the resulting number is divided by the sum of the digits, the quotient is 4 and the remainder is 9. The sum of the digits of the number is

(A) 12 (B) 4 (C) 6 (D) 9

75. The number $x = 1.24242424\ldots\ldots$ can be expressed in the form $x = \frac{p}{q}$, where p and q are positive integer having no common factors. Then the value of p + q is

(A) 222 (B) 72
(C) 74 (D) 76

76. A number when divided by 2736 leaves the remainder 75. If the same number is divided by 24, then the remainder is

(A) 0 (B) 23
(C) 12 (D) 3

77. On simplification, the expression

$$\frac{4\frac{1}{7} - 2\frac{1}{7}}{3\frac{1}{2} + 1\frac{1}{7}} \div \frac{1}{2 + \dfrac{1}{2 + \dfrac{1}{5 - \frac{1}{5}}}}$$

is equal to

(A) $\frac{56}{53}$ (B) $\frac{14}{65}$
(C) $\frac{28}{65}$ (D) $\frac{24}{53}$

SPACE FOR ROUGH WORK

78. Sum of three fractions is $2\frac{11}{24}$. On dividing the largest fraction by the smallest fraction, $\frac{7}{6}$ is obtained which is $\frac{1}{3}$ greater than the middle fraction. The smallest fraction is

(A) $\frac{5}{6}$ (B) $\frac{3}{7}$

(C) $\frac{5}{8}$ (D) $\frac{3}{4}$

79. The unit's digit in the expression $3^{43} \times 6^{43} \times 7^{43}$ is

(A) 7 (B) 3 (C) 4 (D) 6

80. By interchanging the digits of a two digit number we get a number which is four times the original number minus 24. If the tens digit of the original number exceeds its units digit by 7, then the original number is

(A) 58 (B) 18

(C) 29 (D) 36

81. If $\sqrt{5329} = 73$, then the value of $\sqrt{5329} + \sqrt{53.29} + \sqrt{0.5329} + \sqrt{0.005329} + \sqrt{0.00005329}$ is

(A) 81.1103 (B) 81.1013

(C) 81.1003 (D) 81.0113

82. If $\sqrt{1 + \frac{27}{169}} = 1 + \frac{x}{13}$, then x equals

(A) 13 (B) $3\sqrt{3}$ (C) 1 (D) 27

83. The sum of the cubes of two numbers is 793. The sum of the numbers is 13. Then the difference of the two numbers is

(A) 5 (B) 8 (C) 7 (D) 6

84. A does half as much work as B in three fourth of the time. If together they take 18 days to complete the work, how much time shall B alone take to do it ?

(A) 50 days (B) 30 days

(C) 40 days (D) 45 days

85. Two pipes can fill a cistern in 3 hours and 3 hours 45 minutes respectively and a third pipe can empty the whole cistern in an hour. The cistern is half full of water and all the three pipes are opened together. The time after which the cistern will be emptied, is

(A) 1 hour 45 minutes

(B) 45 minutes

(C) 1 hour 15 minutes

(D) 1 hour 30 minutes

86. 2 men and 1 women can complete a piece of work in 14 days while 4 women and 2 men can do the same work in 8 days. If a man gets ₹ 180 per day, then a woman will get per day

(A) ₹ 120 (B) ₹ 160

(C) ₹ 150 (D) ₹ 140

87. A and B do a piece of work in 15 days. B and C can do a similar work in 12 days and C and A in 10 days. How many days will A take to do the work by himself ?

(A) 40 (B) 8 (C) 13 (D) 24

SPACE FOR ROUGH WORK

88. A and B can do a piece of work in 45 and 40 days respectively. They began the work together but A leaves after some days and B finished the remaining work in 23 days. A left after

(A) 12 days (B) 5 days

(C) 6 days (D) 9 days

89. A, B, C are employed to do a piece of work for ₹ 5,290. A and B together are supposed to do $\frac{19}{23}$ of the work and B and C together $\frac{8}{23}$ of the work. Then A should be paid

(A) ₹ 1,950 (B) ₹ 2,290

(C) ₹ 4,250 (D) ₹ 3,450

90. A dealer allows his customers a discount of 25% and still gains 25%. If an article costs ₹ 1,440 to the dealer; then its marked price is

(A) ₹ 2,560 (B) ₹ 1,500

(C) ₹ 1,850 (D) ₹ 2,400

91. The difference between a discount of 30% and two successive discounts of 20% and 10% on the marked price of an article is ₹ 144. The marked price of the article is

(A) ₹ 7,500 (B) ₹ 7,000

(C) ₹ 7,200 (D) ₹ 7,400

92. A tradesman marks his goods at 20% above the cost price. He allows his customers a discount of 8% on marked price. Then his profit percent is

(A) 12.2% (B) 9.7%

(C) 10.4% (D) 11%

93. If a man reduces the selling price of a fan from ₹ 1,250 to ₹ 1,000, his loss increases by 20%. The cost price of the fan is

(A) ₹ 2,500 (B) ₹ 2,350

(C) ₹ 2,400 (D) ₹ 2,450

94. The ratio of two liquids in a mixture is 3 : 5 and that in another mixture is 6 : 1. The ratio in which these two mixtures should be mixed so as to make the ratio of the two liquids 7 : 3 is

(A) 44 : 91 (B) 44 : 61

(C) 44 : 71 (D) 44 : 81

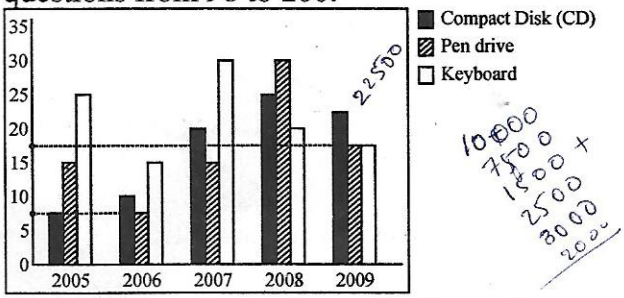
95. A vessel contains 20 litres of acid. 4 litres of acid is taken out of the vessel and replaced by the same quantity of water. Next 4 litres of the mixture are withdrawn, and again the vessel is filled with the same quantity of water. The ratio of the quantity of acid left in the vessel with the quantity of acid initially in the vessel is

(A) 16 : 25 (B) 1 : 5

(C) 4 : 5 (D) 4 : 25

SPACE FOR ROUGH WORK

Directions : Study the following graph which shows the production (in thousand) of different items, and answer the questions from **96** to **100**.



96. The total number of all products produced by the company in the year 2006 and 2008 together is
(A) 107500 (B) 105700
(C) 10750 (D) 1075

97. The average number of pendrives produced by the company overall the years together is
(A) 1700 (B) 170000
(C) 17000 (D) 85000

98. The difference between the total number of CD and Pen-drives produced by the company together in the year 2008 and the number of Keyboards produced by the company in the year 2006 is
(A) 3500 (B) 35000
(C) 4000 (D) 40000

99. The ratio between the number of keyboards produced by the company in the year 2006, 2007 and 2008 respectively is
(A) 1 : 2 : 3 (B) 3 : 4 : 5
(C) 3 : 6 : 4 (D) 3 : 4 : 6

100. The respective ratio between the number of CD's produced by the company in the year 2009 and the number of keyboards produced by the company in the year 2005 is
(A) 9 : 10 (B) 11 : 10
(C) 10 : 9 (D) 10 : 11

For Visually Handicapped/Cerebral Palsey Candidates Only

96. After buying two articles for ₹ 400, a businessman sold both the articles at the same price and thereby he gained 10% on the one and lost 10% on the other. On the whole transaction he had
(A) 1% loss (B) No profit or loss
(C) 1% profit (D) 2% loss

97. If $\tan\theta + \sec\theta = 2$, then the value of $\tan\theta$ is
(A) $\frac{4}{5}$ (B) $\frac{3}{5}$ (C) $\frac{3}{4}$ (D) $\frac{2}{3}$

98. A and B start a business in partnership. A's share of the capital is twice that of B. At the end of 3 months A withdraws 1/3 of his capital but he puts back 1/3 of what he had taken out, at the end of 7 months, when B takes out 1/4 th of his capital. If at the end of 1 year, B receives ₹ 6,750 as a profit, then A's share of profit (in ₹) is
(A) 9,000 (B) 12,000
(C) 13,500 (D) 15,000

99. If the sum of two numbers is 16, and $\frac{1}{5}$ of the smaller is equal to the $\frac{1}{3}$ of the bigger, then the product of the numbers is
(A) 64 (B) 60 (C) 48 (D) 15

100. The base of a right prism is a triangle whose sides are in the ratio 3 : 4 : 5 and area of lateral surface is 144 cm^2. If the height of the prism is 6 cm, then its volume (in cm^3) is
(A) 120 (B) 144 (C) 160 (D) 184

SPACE FOR ROUGH WORK