

- A can do a piece of work in 10 days which B alone can do in 12 days. In how many days can both do it working together?
(A) 11 days (B) 15 days (C) $\frac{60}{11}$ days (D) 8 days
- A, B and C can complete a work, working alone in 10, 15 and 20 days respectively. If all of them work together to complete the work, what fraction of the work would have done by B ?
(A) $\frac{4}{13}$ (B) $\frac{1}{2}$ (C) $\frac{1}{3}$ (D) $\frac{6}{13}$
- A and B can do a job in 12 days; B and C can do it in 16 days. After A has worked for 5 days and B has worked for 7 days, C can finish the rest in 13 days. In how many days can C do the work alone?
(A) 16 days (B) 24 days (C) 36 days (D) 48 days
- A is thrice as efficient as B, and B is twice as efficient as C. If A, B and C work together, how long will they. Take to complete a job which B completed in 10 days ?
(A) $\frac{20}{9}$ days (B) $\frac{11}{9}$ days (C) 3 days (D) None of these
- A is thrice as good workman as B, and takes 60 days less than B to complete a job. Find the time in which they can do it together.
(A) $\frac{80}{3}$ days (B) $\frac{90}{6}$ days (C) $\frac{45}{2}$ days (D) $\frac{35}{2}$ days
- Five men take as much time to do a job as 10 women take. If 6 men take 10 days to complete a job working 4 hrs per day, how much time would 10 women take to do a job twice as much as the former the same working 6 hrs a day?
(A) 12 day (B) 14 days (C) 16 days (D) 18 days
- Taps A and B fill a tank in 12 min and 15 min respectively. If both are opened and A is closed after 3 min, how long will it take for B to fill the tank ?
(A) 7 min 45 s (B) 7 min 15 s (C) 8 min 5 s (D) 8 min 15 s
- Because of leak, a tank which usually is filled in 3 hrs, now takes 3.5 hrs to be filled. The leak alone will empty the filled tank in
(A) 18 hrs (B) 21 hrs (C) 15 hrs (D) Cannot be determine
- A can do a job in 10 days and B in 20 days. They work together, but 4 days before the finish of the job, B leaves. Find the total days to finish the job ?
(A) 6 (B) 8 (C) 12 (D) 14
- A leak in the bottom of a tank can empty it in 6 hr. A pipe fills the tank at 4 L/min. When the tank is full, the inlet is opened, but due to the leak the tank is emptied in 8 hr. What is the capacity of the tank ?
(A) 5,260 L (B) 5,760 L (C) 5,846 L (D) 6,970

11. A man rows 13 km upstream and 28 km downstream in 5 hrs each. Find the velocity of the stream.
 (A) 2 kmph (B) 1.5 kmph (C) 2.5 kmph (D) 3 kmph
12. A dog at point A goes in pursuit of a fox 40 m away. The dog takes leap of 2 m against 1 m long leaps of the fox. If the dog makes two leaps to the fox's three, at what distance from A will the dog catch up with the fox?
 (A) 150 m (B) 160 m (C) 105 m (D) 120 m
13. A, B and C are moving on a circular track A who is the only one moving in anticlockwise direction and moves at a speed twice that of B and thrice that of C, takes 10s to cover the entire track. If all the three start simultaneously, when would they meet for the second time after the start?
 (A) 120 s (B) 240 s (C) 300 s (D) None of these
14. The time in a clock is 20 minute past 2. Find the angle between the hands of the clock.
 (A) 60 degrees (B) 120 degrees (C) 45 degrees (D) 50 degrees

Direction (15 to 16):

A 12 dial clock has its minute hand defective. Whenever it touches dial 12, it immediately falls down to 6 instead of running smoothly (the hour hand remains unaffected during that fall). It was set right at 12 'O' clock in the noon.

15. What was the actual time when the minute hand of the clock touched dial 9 for the 5th time?
 (A) 2 : 15 (B) 3 : 00 (C) 5 : 15 (D) 6 : 45
16. If the actual time is 10 : 10, what is the position of the hour hand in that defective clock?
 (A) Between 2 and 3 (B) Between 4 and 5 (C) Between 10 and 11 (D) Between 3 and 4
17. Two trains start at the same time from Hyderabad and Delhi and proceed towards each other at 80 km/hr and 95 km/hr respectively. When the trains meet, it is found the one has traveled 180 km more than the other. Find the distance between Delhi and Hyderabad/
 (A) 210 km (B) 2,100 km (C) 2,010 km (D) 2,000 km
18. It takes 12 hrs for a bus to cover the distance between the cities, X and Y. A bus leaves X for Y at 6 p.m. and another bus leaves Y for X at 8 p.m. At what time will the two buses meet? (Assume both travel with same speed)
 (A) 1 a.m. (B) 2 a.m. (C) 4 a.m. (D) 6 a.m.
19. A motorcyclist travels from A to B at the rate of 20 km/hr and returns from B to A at the rate of 40 km/hr. If the distance between A and B is 60 km, what is the average speed for the entire trip/
 (A) $26\frac{1}{3}$ km/hr (B) $26\frac{2}{3}$ km/hr (C) 30 km/hr (D) 60 km/hr
20. Two trains can run at a speed of 54 km/hr and 36 km/hr on a parallel track. When they are running in opposite directions, they pass each other in 10s. When they move in the same direction, a person sitting in the faster train crosses the other train in 30 s. Find the length of the trains (faster and slower respectively)
 (A) 100 m and 150 m (B) 150 m and 100 m (C) 150 each (D) 100 m each
21. A man takes 5 hr and 45 min to walk down and return by riding to a certain place. He would have gained 2 hr by riding both ways/ The time he would take to walk both ways is
 (A) 3 hr 45 min (B) 7 hr 30 min (C) 7 hr 45 min (D) 1 hr 45 min

22. 24 men can complete a given job in 40 days. Then how many men required to complete the job in 32 days is
 (A) 30 (B) 32 (C) 33 (D) 34
23. A railway passenger counts the telegraph posts on the line as he passes them while traveling; If the poles are 50 m apart and the train is going at the speed on 48 km/hr. How many posts will be passed by the train per minute?
 (A) 15 (B) 16 (C) 18 (D) 20
24. A thief robs a house at 12 midnight, and as soon as he leaves the house, the house owner realises of the robbery in the house. After 10 minutes he rings the alert alarm, and the security guards of the house start running after the thief to catch him. If the speed of the thief is 30 km/hr and that of the security guards is 20 km/hr, what time will the guards catch the thief ?
 (A) 00.30 hrs (B) 00.40 hrs (C) Cannot be determined (D) never catch the thief
25. A thief escaped from police custody. Since he was a sprinter he could clock 40 km/hr. The police realized it after 3 hr. and started chasing him in the same direction at 50 km/hr. The police had a dog which could run at 60 km/hr. The dog could run to the thief and then return to the police and then would turn back towards the thief. It kept on doing so till the police caught the thief/ Find the total distance traveled by the dog in the direction of the thief.
 (A) 720 km (B) 600 km (C) 660 km (D) 360 km
26. Vijay and Shivku start simultaneously from the opposite ends of a pool which is 50 m long. They pass each other, reach the respective end, and immediately turn back. Now they meet at a distance of 15 m from where vijay started, 10 s after the start. Find the speed of shivku.
 (A) 6.5 m/s (B) 7.5 m/s (C) 8.5 m/s (D) 5 m/s
27. Pallavi and Richa start Simultaneously from P and Q towards Q and P respectively. They meet on the way at T. Which is at a distance of 120 m from P. If Pallavi and Richa take 16 s and 25 s to reach their respective destinations from T, then what is the distance between P and Q
 (A) 214 m (B) 200 m (C) 240 m (D) 216 m
28. A can beat B by 20 m in a 200 m race. B can beat C by 10 m in a 200 m race. By how many metres can A beat C in a 100 m race?
 (A) 14 m (B) 12 m (C) 13.6 m (D) 14.8 m
29. A man on tour travels first 160 km at 64 km/hr and the next 160 km at 80 km/hr. The average speed for the first 320 km of the tour is :
 (A) 35.55 km/hr (B) 36 km/hr (C) 71.11 km/hr (D) 71 km/hr
30. A can do a piece of work in 7 days of 9 hr each, and B can do it in 6 days of 7 hr each. How long will they take to do it working together $\frac{42}{5}$ hr a day?
 (A) 3 days (B) 4 days (C) 4.5 days (D) None
31. A works twice as fast as B. If B can complete a work in 12 days independently, then the number of days in which A and B together finish the work is :
 (A) 4 days (B) 6 days (C) 8 days (D) 18 days
32. A can do a job in 3 days, and B can do the same job in 6 days. How long will it take them if they work together?
 (A) 1 day (B) 2 days (C) 3 days (D) 4 days
33. If x men consume x kg of food in x days, then 'y' men will consume y kg of food in
 (A) y days (B) x days (C) x/y days (D) y / x days

34. A can do a piece of work in 24 days. If B is 60% more efficient than A, then the number of days required by B to do the twice as large as the earlier work is -
 (A) 24 (B) 36 (C) 15 (D) 30
35. A takes 10 days less than the time taken by B to finish a piece of work. If both A and B together can finish the work in 12 days, the time taken by B to finish the work is :
 (A) 20 days (B) 30 days (C) 40 days (D) 50 days
36. In a camp of 100 students, there is ration which lasts for 8 days. After the first 2 days, 50 more students join them. How long will the ration last now? (Assume all the students have equal eating capacity)
 (A) 4 days (B) 6 days (C) 8 days (D) None
37. Two cars A and B having average speeds of 30 and 40 miles/hr respectively are 280 miles apart. They start moving toward each other at 3.00 P.M. At what time will they meet ?
 (A) 5 P.M. (B) 6 P.M. (C) 7 P.M. (D) 8 P.M.
38. 30% of 28% of 480 is the same as
 (A) 15% of 56% of 240 (B) 60% of 28% of 240 (C) 60% of 56% of 240 (D) None of these
39. A man is traveling by car at the rate of 40 km/hr. After every 80 km, he rests for 20 min. How long will he take to cover a distance of 240 km ?
 (A) 6 hr 40 min (B) 6 hr (C) 6 hr 20 min (D) 7 hr
40. A train, 700 metres long is running at the speed of 72 km/hour. If it crosses a tunnel in 1 minute, then the length of the tunnel is (in metres)
 (A) 700 (B) 600 (C) 550 (D) 500
41. A watch is sold for Rs. Y at 10% loss. Cost price of the watch is :
 (A) Rs. $\frac{100 \times y}{90}$ (B) Rs. $\frac{90 \times y}{100}$ (C) Rs. $\frac{100 \times y}{100}$ (D) Rs. $\frac{110 \times y}{100}$
42. The population of a village in the year 2000 was 10,000. In the year 2001 & 2002 percentage increase in population was 5% & 10% respectively. The population of village in the year 2002 will be :
 (A) $10000 \times \left(1 + \frac{5}{100}\right) \left(1 + \frac{10}{100}\right)$ (B) $10000 \times \left(1 - \frac{5}{100}\right) \left(1 - \frac{10}{100}\right)$
 (C) $10000 \times \left(1 - \frac{5}{100}\right) \left(1 + \frac{10}{100}\right)$ (D) $10000 \times \left(1 + \frac{5}{100}\right) \left(1 - \frac{10}{100}\right)$
43. Khadi Board gave a discount of 20% on occasion of Gandhi Jayanti. It also give a extra discount of 15% to schools. If a teacher purchase a carpet marked at Rs. 1500 in the name of school then how much extra benefit he will get :
 (A) Rs. 300 (B) Rs. 225 (C) Rs. 525 (D) Rs. 180
44. A started a business by investing Rs. 8000. After x months B joined the business invested Rs. 12,000. If the profit earned is equal by both at the end of the year then find the value of x :
 (A) 3 months (B) 4 months (C) 6 months (D) 8 months
45. If a selling price of Rs. 24 result in a 20% discount of the list price, the selling price that would result in a 30% discount of the list price is
 (A) Rs. 9 (B) Rs. 27 (C) Rs. 14 (D) Rs. 21
46. Sheila purchases 20 kg apples at Rs. 15/kg and another 10 kg apples at Rs. 20/kg. What is the average cost per kilogram?
 (A) Rs. 15.33/kg. (B) Rs. 27 (C) Rs. 14 (D) Rs. 21

47. If an amount is kept at S.I. It earns an interest of Rs. 600 in first two years but when kept at C.I. it earns an interest of Rs. 660 in the same period. The rate of interest will be
 (A) 10% (B) 20 % (C) 30% (D) None of these
48. p, q and r are three positive numbers and $Q = \frac{p+q+r}{2}$. If $(Q-p) : (Q-r) = 2 : 5 : 7$, then find the ratio of p, q and r ?
 (A) 9 : 7 : 12 (B) 12 : 9 : 7 (C) 12 : 7 : 9 (D) 7 : 9 : 12
49. Four years ago father's age was 6 times that of his son. Twelve years from now, father's age will be twice that of the son. What is the present ratio of father and son's ages ?
 (A) 6 : 1 (B) 7 : 1 (C) 8 : 2 (D) 7 : 2
50. X's salary is half that of Y's. If X got a 50% rise in this salary and Y got 25% rise in his salary, then the percentage increase in combined salaries of both is
 (A) 30% (B) $33\frac{1}{3}\%$ (C) $37\frac{1}{2}\%$ (D) 75%
51. On selling an article for Rs. 240, trader losses 4%. In order to gain 10% he must sell that article for -
 (A) Rs. 264.00 (B) Rs. 273.00 (C) Rs. 275.00 (D) Rs. 280.00
52. At compound interest, if a certain sum of money doubles in 'n' number of years, then the amount will be four fold in
 (A) $2n^2$ years (B) n^2 years (C) 4n years (D) 2n years
53. Ratio of the earning of A and B is 4 : 7. If earning of A increase by 50% and those of B decrease by 25% the new ratio of their earnings becomes 8 : 7. What are A's earnings ?
 (A) Rs. 21,000 (B) Rs. 26,000 (C) Rs. 28,000 (D) Data inadequate
54. If a sum becomes $\frac{28}{25}$ of itself in 5 years then the rate of interest is -
 (A) $\frac{15}{2}\%$ (B) $\frac{5}{12}\%$ (C) $\frac{8}{12}\%$ (D) $\frac{6}{5}\%$
55. a, b, c are three positive integers $2s = a + b + c$. If $(s-a) : (s-b) : (s-c) = 1 : 7 : 4$, then the ratio a : b : c is equal to =
 (A) 8 : 10 : 6 (B) 11 : 5 : 8 (C) 9 : 4 : 12 (D) 7 : 8 : 9
56. A person sold two almirah for Rs. 1980 each fetching equal amount. On one almirah he gained 10% while on the other he lost 10%. In the bargain he
 (A) gained 2% (B) loss 1% (C) gained 10% (D) neither gained nor lost
57. A sum of money invested at compound interest amounts Rs. 10,890 in two years and Rs. 11,979 in three years. The sum invested is-
 (A) Rs. 9500 (B) Rs. 9000 (C) Rs. 9700 (D) Rs. 10,000
58. A dairyman pays Rs. 6.40 per liter of milk. He adds water and sells the mixture at Rs. 8 per litre, thereby making 37.5% profit. The proportion of water to milk received by the customers is :
 (A) 1 : 10 (B) 1 : 12 (C) 1 : 15 (D) 1 : 20
59. The population of a city increases at the rate of 4% per annum, but there is an additional annual increase of 1% in the population due to the flux of job seekers. The percentage increase of the population after 2 years is -
 (A) 10% (B) 10.25% (C) 10.5% (D) 10.75%
60. Aditya obtains a loan of Rs. 64,000 against his fixed deposit. If the rate of interest is 2.5 paise per rupee per annum, calculate the compound interest payable after 3 years.
 (A) Rs. 4,129 (B) Rs. 4,921 (C) Rs. 4,921 (D) Rs. 5,119

61. In a selection process comprising of written test, group tasks and interview, only 40% of these who appeared for the selection proves qualified the written test, 80% of those passed in written test qualified in group tasks and 65% of those passed in group tasks qualified for interview. If the number of those qualified finally was only 78, what was the total number of candidates who appeared ?
 (A) 375 (B) 150 (C) 120 (D) None of these
62. In an examination, A gets 10% marks less than B and B gets 10% marks less than C. If A gets 810 marks, what marks does C get?
 (A) 900 (B) 945 (C) 973 (D) 1,000
63. If the lengths of rectangle is decreased by 40% and the breadth is increased by 30%, then find the percentage change in the area of the rectangle is
 (A) 26% (B) -35% (C) -22% (D) -40%
64. If 25% of A's income exceeds 20% of B's income by Rs. 100 their combined income is Rs. 1750, what is A's income?
 (A) Rs. 750 (B) Rs. 950 (C) Rs. 1,000 (D) Rs. 1,250
65. Sales tax on cloth is reduced by 10% but the sales increase by 10% What is the effect on the revenue earned as sales tax?
 (A) Remains the same (B) Increases by 5.5% (C) Decreases by 5.5% (D) Decreases by 1%
66. A and B's salaries are together equal to Rs. 2,100, A spends 80% of his salary and B spends 70%. If they savings are now in the proportion of 4 : 3, what is A's salary ?
 (A) Rs. 900 (B) Rs. 980 (C) Rs. 1,200 (D) Rs. 1,400
67. The length, breadth & height of a room in the shape of cuboids are increased by 10%, 20% & 50% respectively. Find the % change in the volume of cuboids?
 (A) 77% (B) 87% (C) 98% (D) 55%
68. On decreasing the price of fans by 30%, the sale is increased by 20%. What is the effect on money receipt by the shopkeeper?
 (A) 12% (B) 16% (C) 32% (D) Nil
69. A man willed 20% of his property to his grandson 25% of the balance to his son, $33\frac{1}{3}\%$ of what remaindered to his daughter and 60% of the remaining to his wife. If the son received Rs. 4,000 less than the wife, what the whole property worth?
 (A) Rs. 75,000 (B) Rs. 94,000 (C) Rs. 1,00,000 (D) Rs. 12,500
70. A dishonest seller used a weight of 800 g in place of 1 kg and ads 20% impurities in sugar. What would be his profit percentage if he claims to be selling at cost price ?
 (A) 20% (B) 44 % (C) 60% (D) 50%
71. One kilogram tea and 1 kg sugar together cost Rs. 95. If the price of tea falls by 10% and that of sugar rises by 20%, the price of 1 kg each combined comes to Rs. 90. The original price of tea per kilogram is
 (A) Rs. 80 (B) Rs. 72 (C) Rs. 55 (D) 90
72. If an article is sold at 8% profit instead of 8% loss, it would have brought Rs. 12 more. Find out the cost price of the article.
 (A) Rs. 72 (B) Rs. 70 (C) Rs. 80 (D) Rs. 75

73. If CP of 23 books is equal to SP of 30 books, then the gain or loss if (You have to assume that all the books cost are same)
- (A) $23\frac{1}{3}\%$ gain (B) $23\frac{1}{3}\%$ loss (C) $30\frac{10}{23}\%$ loss (D) $33\frac{1}{3}\%$ gain
74. By selling an article for Rs. 150 one gains Rs. 15, the gain percent is ?
- (A) 15% (B) 12% (C) 11.11% (D) None
75. By selling 36 Bananas, a vendor loses the selling price of 4 bananas, His loss percent is
- (A) $12\frac{1}{2}\%$ (B) $10\frac{1}{2}\%$ (C) $11\frac{1}{9}\%$ (D) 10
76. Toffees are bought at the rate of 4 for a rupee. To gain 60% they must be sold at
- (A) 2.5 for a rupee (B) 5 for a rupee (C) 6 for a rupee (D) 8 for a rupee
77. Toffees are bought at the rate of 4 for a rupee. To gain 60% they must be sold at
- (A) 15% (B) 12% (C) 10% (D) 11%
78. Which one is greater?
- I. Successive discounts of 10%, 15% and 12.5%
- II. Two-stage discount of 20% and 13%.
- (A) I only (B) II only
- (C) Both give the same discount (D) Cannot be determined
79. A businessman sells a shirt at a profit of $12\frac{1}{2}\%$ and invests the proceeds to buy a pant which he sells at a profit of 20%. If he gets Rs. 700 for this, the cost of the shirt approximately is-
- (A) Rs. 600 (B) Rs. 519 (C) Rs. 571 (D) Rs. 548
80. A sells B a plot of land for Rs. 45,000 losing 10% in the transaction. B sells it to C at a price which would have given A, a profit of 10%. By what percentage does B gain ?
- (A) $\frac{100}{3}\%$ (B) $\frac{75}{2}\%$ (C) $\frac{200}{9}\%$ (D) $\frac{220}{6}\%$
81. A tradesman marks his goods at 30% above the cost, but is constrained to give a discount of 30% to clear his stock. What is this percentage gain or loss ?
- (A) Neither loss or gain (B) Loss of 1% (C) Gain of 9% (D) Loss of 9%
82. While selling watch a shopkeeper gives a discount of 5%, if he gives a discount of 7%, he earns Rs. 15 less as profit. The marked price of the watch is -
- (A) Rs 697.50 (B) 712.50 (C) Rs 787.50 (D) Rs. 750
83. If a certain sum amounts increases upto Rs. 108 in 2 yrs. and Rs. 112 in 3 yrs. Find the principal rate of interest.
- (A) 5 % (B) 6% (C) 4% (D) None of these
84. A man earn Rs. 450 as an interest in 2 yrs on a certain sum invested with company at the rate of 12% per annum. Find the sum invested by the main in the company.
- (A) Rs. 1785 (B) Rs. 1830 (C) Rs. 1825 (D) Rs. 1810
85. Difference between C.I. & S.I. in a certain amount at 10% per annum for 2 yrs compound annually is Rs. 282. Find the principal
- (A) Rs. 28210 (B) Rs. 28120 (C) Rs. 28200 (D) None
86. If a sum of money doubles at 12.5% p.a. interest. What is the time period is case of S.I.
- (A) 5.88 yrs (B) 8 yrs (C) 9.88 yrs (D) 2.88 yrs

87. If the compound interest of a certain sum for 3 years at 10% per annum be Rs. 331, what would be the simple interest?
 (A) Rs. 320 (B) Rs. 310 (C) Rs. 321 (D) Rs. 300
88. If x, y and z are three sums of money such that y is the simple interest on x ; z is the simple interest on y for the same time and at the same rate of interest then we have
 (A) $x^2 = yx$ (B) $z^2 = xy$ (C) $y^2 = xz$ (D) $xyz = 1$
89. A sum of Rs. 12000 deposited at compound interest become double after 5 years. After 20 years it will become -
 (A) 120000 (B) 192000 (C) 124000 (D) 96000
90. A tree increases annually by $\frac{1}{8}$ of its height. What will be its height after 2 years, if it stands to days 64cm high?
 (A) 72 cm (B) 74 cm (C) 75 cm (D) 81 cm
91. A book seller allows a discount of 10% on the marked price of a certain category of books. What price must be marked on the book which costs his Rs. 600 to make a profit of 20% ?
 (A) Rs. 792 (B) Rs. 800 (C) Rs. 720 (D) Rs. 726
92. The income of property dealer remain unchanged though the rate of commission is increased from 8% to 10%. The percentage of slump in the value of the business is
 (A) 2% (B) 20% (C) 25% (D) None of these
93. Find the 30% of, 50% of 40 subtracted from 60% of 60 ?
 (A) 4.8 (B) 5 (C) 12 (D) 3.6
94. 75% of a number when added to 75 is equal to the number. Find the number?
 (A) 250 (B) 500 (C) 300 (D) 400
95. Mr. Alphonso buys 2 lots of mangoes. The first lot costs him Rs. 30 per dozen and the second lot Rs. 50 per dozen. He sold all the mangoes at Rs. 40 per dozen. Find his profit or loss percentage if he spent he same amount of money on each of the lots.
 (A) $6\frac{2}{3}\%$ loos (B) $6\frac{2}{3}\%$ profit (C) 5% profit (D) None of these
96. Two horses were sold for Rs. 12,000 each, one at a loss of 20% and the other at a gain of 20%. The entire transaction resulted in
 (A) no loss, no gain (B) a loss of Rs. 1,000 (C) a gain of Rs. 1,000 (D) None of these
97. In mathematics exam a student scored 30% of marks in the first paper out of a total of 180. How much should be score in the 2nd paper out of 150, if he is to get an overall of at least 50% ?
 (A) 8% (B) 76% (C) 74% (D) 70%
98. 25% of a number is more than 18% of 650 by 19. Find the number
 (A) 560 (B) 750 (C) 720 (D) 544
99. In a college election a candidate secured 62% of the total votes polled and is elected by a majority of 144 votes, find the total number of votes polled?
 (A) 700 (B) 500 (C) 1000 (D) None of these
100. If the side of a squire is increased by 30% it's area is increased by how much percent ?
 (A) 60% (B) 69% (C) 70% (D) None of these
101. If the cost price of 12 books is the same as the selling price of 16 books, the loss percentage is
 (A) 15% (B) 20% (C) 25% (D) 30%

102. A man bought a number of bananas at 3 for a rupee and an equal number at 2 for rupee. At what price per dozen should he sell them to make a profit of 20%?
 (A) Rs. 4 (B) Rs. 6 (C) Rs. 7 (D) Rs. 8
103. A producer of tea blends two varieties costing Rs. 18 per kilogram and another Rs. 20 per kilogram in the ratio 5 : 3. If he sells the blended variety at Rs. 21 per kilogram, What is his gain percentage?
 (A) 10% (B) 12% (C) 19% (D) 22%
104. A dealer who professes to sell his goods at cost price used a 900 g weight for a kilogram. His gain percentage is
 (A) 9% (B) 10% (C) 11.11% (D) 11.21%
105. The cost price of an article is 40% of the selling price. The percentage that the selling price is of the cost price is
 (A) 40% (B) 60% (C) 250% (D) 280%
106. By selling an article, there is a loss of 2.5%. By selling it at Rs. 6 more, there is a gain 5%. The cost price of the article is
 (A) Rs. 78 (B) Rs. 80 (C) Rs. 82 (D) Rs. 84
107. The difference between the discounts of 40% on Rs. 500 and two successive discounts of 36% and 4% of the same price is
 (A) Nil (B) Rs. 2 (C) Rs 7.20 (D) Rs. 1.93
108. A merchant sells rice and makes a profit of 6%. His cost price increases by 10% and thus he increases his selling price also by 10%. What profit percentage does he earn now ?
109. The salaries of A, B, C are in the ratio 2 : 3 : 5. If the increments of 15%, 10% and 20% are allowed respectively in their salaries, then what will be the new ratio of their salaries ?
 (A) 3 : 3 : 10 (B) 10 : 11 : 20 (C) 23 : 33 : 60 (D) Cannot be determined
110. In a bag, there are coins of 25 p, 10 p and 5 p in the ratio of 1 : 2 : 3. If there are Rs. 30 in all, how many 5 p coins are there?
 (A) 50 (B) 100 (C) 150 (D) 200
111. A sum of Rs. 1300 is divided amongst P, Q, R and S such that

$$\frac{P's \text{ share}}{Q's \text{ share}} = \frac{Q's \text{ share}}{R's \text{ share}} = \frac{R's \text{ share}}{S's \text{ share}} = \frac{2}{3}.$$

Then P's share is:

- (A) Rs. 140 (B) Rs. 160 (C) Rs. 240 (D) Rs. 320
112. The numbers are respectively 20% and 50% more than a third number. The ratio of the two numbers is :
 (A) 2 : 5 (B) 3 : 5 (C) 4 : 5 (D) 6 : 7
113. The ratio of the number of boys and girls in a college is 7 : 8. If the percentage increase in the number of boys and girls be 20% and 10% respectively, what will be the new ratio ?
 (A) 8 : 9 (B) 17 : 18 (C) 21 : 22 (D) Cannot be determined
114. The ratio of third proportional of 12 and 30 and the mean proportional between 9 and 25 is :
 (A) 2 : 1 (B) 5 : 1 (C) 7 : 15 (D) 9 : 14
115. The ratio of the incomes of A and B is 5 : 4 and the ratio of their expenditures is 3 : 2. If at the end of the year, each saves Rs. 1600, then the income of A is :
 (A) Rs. 3400 (B) Rs. 3600 (C) Rs. 4000 (D) Rs. 4400

116. A sum of Rs. 53 is divided among A,B,C in such a way that A gets Rs. 7 more than what B gets and B gets Rs. 8 more than what C gets. The ratio of their shares is :
 (A) 16 : 9 : 18 (B) 25 : 18 : 10 (C) 18 : 25 : 10 (D) 15 : 8 : 30
117. If $A : B : C = 2 : 3 : 4$, then $\frac{A}{B} : \frac{B}{C} : \frac{C}{A}$ is equal to :
 (A) 4 : 9 : 16 (B) 8 : 9 : 12 (C) 8 : 9 : 16 (D) 8 : 9 : 24
118. If $2A = 3B$ and $4B = 5C$, then $A : C$ is :
 (A) 4 : 3 (B) 8 : 15 (C) 15 : 8 (D) 3 : 4
119. The ratio of $4^{3.5} : 2^5$ is same as :
 (A) 2 : 1 (B) 4 : 1 (C) 7 : 5 (D) 7 : 10
120. If $(4x^2 - 3y^2) : (x^2 + 5y^2) + 12 : 19$, then $(x : y)$ is :
 (A) 2 : 3 (B) 1 : 2 (C) 3 : 2 (D) 2 : 1
121. If $5x^2 = 13xy + 6y^2 = 0$, then $x : y$ is :
 (A) (2 : 1) only (B) (3 : 5) only (C) (5 : 3) or (1 : 2) (D) (3 : 5) or (2 : 1)
122. Salaries of Ravi and Sumit are in the ratio 2 : 3. If the salary of each is increased by Rs. 4000, the new ratio becomes 40 : 57/ What is Sumit's present salary ?
 (A) Rs. 17,000 (B) Rs. 20,000 (C) Rs. 25,500 (D) None to these
123. The ratio between two numbers is 3 : 4 and their L.C.M. is 180. The first number is :
 (A) 60 (B) 45 (C) 20 (D) 15
124. Gold is 19 times as heavy as water and copper is 9 times as heavy as water. In what ratio should these be mixed to get an alloy 15 times and heavy as water ?
 (A) 1 : 1 (B) 2 : 3 (C) 1 : 2 (D) 3 : 2
125. The ratio of the number of boys and girls in a school is 3 : 2. If 20% of the boys and 25% of the girls are scholarship holders, what percentage of the students does not get the scholarship?
 (A) 56 (B) 70 (C) 78 (D) 80
126. 4 milkmen rented a pasture. A grazed his 12 cows for 6 months, B 10 cows for 5 months, C 14 cows for 10 months and D 9 cows for 7 months. If A's share of rent is Rs. 36, find the amount paid as rent by C & D.
 (A) 25, 70 (B) 25, 31.5 (C) 70, 31.5 (D) 70, 25
127. A & B together started a business, subscribing Rs. 10,000 & 15000 respectively. B being a sleeping partner. A manages the business and receives 10% of profits for his extra labour & remainder is divided by them. Find the share of 'A' if total profit is Rs. 2300.
 (A) 414 (B) 800 (C) 230 (D) 1058
128. The salaries of A, B and C together amounts to Rs. 333. If they spend 80%, 85% and 75% of their respective salaries. If their savings are 7 : 6 : 9, then their respective salaries are
 (A) Rs. 102, Rs. 118 and Rs. 113 (B) Rs. 105, Rs. 120 and Rs. 108
 (C) Rs. 85, Rs. 125 and Rs. 123 (D) None of these
129. The proportion in which two kinds of tea, one costing Rs. 44 and other costing Rs. 39 should be mixed so that the mixture can be sold at Rs. 42 is
 (A) 3 : 2 (B) 2 : 3 (C) 1 : 4 (D) 4 : 1
130. Two alloys containing copper and iron in the ratio 5 : 8 and 5 : 3 are melted in equal quantities. Find the ratio of iron and copper in the resulting alloy.
 (A) 103 : 105 (B) 15 : 24 (C) 3 : 8 (D) 105 : 103

131. Two kinds of quantity mixed in the ratio 2 : 3 and sold at Rs. 22 per kilogram, resulting in a profit of 10%. If the smaller quantity costs Rs. 14 per kilogram, then the cost per kilogram of the larger quantity is
 (A) Rs. 23 (B) Rs. 24 (C) Rs. 29 (D) Rs. 30
132. Some quantity of tea worth Rs. 30.20 per kilogram is to be mixed some quantity of tea worth Rs. 20.50 per kilogram so that the mixture is worth Rs. 25.40 per kilogram. The ratio of the quantity of tea of the first kind to that of the second kind in the mixture should be
 (A) 48 : 49 (B) 49 : 18 (C) 49 : 24 (D) 49 : 48
133. In a mixture of 100 L. the ratio of milk and water is 3 : 1. If the ratio of water and milk has to be 1 : 3, how much water is to be added ?
 (A) 200 L (B) 225 L (C) 150 L (D) None of these
134. Goods are purchased for Rs. 450 and one-third of it is sold at a loss of 10%. At what profit percentage should the remainder be sold so as to gain 20% on the whole transaction?
 (A) 155 (B) 25% (C) 35% (D) 45%
135. In a mixture of 80 L, milk and water are in the ratio 5 : 3. If 16 L of this mixture is replaced by 16 L of milk, the ratio of milk and water becomes
 (A) 2 : 1 (B) 6 : 3 (C) 7 : 3 (D) 8 : 3
136. The ages of A and B are in the ratio 9 : 4. After 7 years the ratio will be 5 : 3. The present ages of A and B respectively are
 (A) 9 and 4 years (B) 18 and 8 years (C) 27 and 12 years (D) Cannot be determined
137. A sum of money is divided among A, B and C such that for each Rs. 2, A gets Rs. 1, gets 65 paise and C gets 35 paise. If C's share is Rs. 560, then find the sum.
 (A) Rs. 2,400 (B) Rs. 2,800 (C) Rs. 3,200 (D) 3,600
138. If $x : y = 2 : 3$ then find the value of $(y^3 - x^3) : (y^3 + x^3)$
 (A) $\frac{9}{15}$ (B) $\frac{19}{35}$ (C) $\frac{19}{21}$ (D) None of these
139. A began business with Rs. 4200 and is joined by B afterwards with Rs. 7200 ? For what period did B join if the profits at the end of the year are divided equally.
 (A) 4 months (B) 6 months (C) 7 months (D) 5 months
140. A and B invested in the ratio 3 : 2 in business. If 5% of the total profit goes to charity and A's share is Rs. 855, find the total profit.
 (A) 1500 (B) 1600 (C) 1710 (D) 1800
141. In a partnership, A invested $\frac{1}{6}$ of the capital for $\frac{1}{6}$ of the time, B invested $\frac{1}{3}$ of the capital for $\frac{1}{3}$ of the time and C invested the rest of the capital for the whole period. At the end of the period, they earned a profit of Rs. 4600. Find the share of B.
 (A) 200 (B) 3600 (C) 600 (D) 800
142. A and B enter into partnership for a year. A contributes Rs. 1500 and B Rs. 2000. After 4 months, they admit C, who contributes Rs. 2250. If B withdraws his contribution after 9 months, how would they share a profit of Rs. 900 at the end of year.
 (A) 300 each (B) 400, 200, 300 (C) 200, 200, 500 (D) 600, 100, 200
143. What must be added to each term of 4 : 9, so that it becomes 2 : 3
 (A) 1 (B) 6 (C) 11 (D) Can't be determine