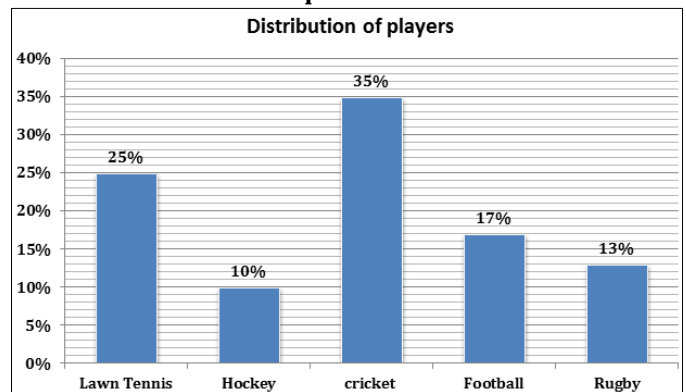


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NUMERICAL ABILITY**

51. Two pipes A and B can fill a cistern in 37(1/2) minutes and 45 minutes resp. Both pipes are opened. The cistern will be filled in just half an hour, if the pipe B is turned off after
 A. 5 min B. 9 min C. 10 min
 D. 15 min E. None of these
52. The sides of a rectangular field are in the ratio 3 : 4. If the area of the field is 7500 sq. m, the cost of fencing the field @ 25 paise per metre is
 A. Rs 55.50 B. Rs 67.50 C. Rs 86.50
 D. Rs 87.50 E. None of these
53. 12 men and 16 boys can do a piece of work in 5 days and 13 men and 24 boys can do it in 4 days, how long will 7 men and 10 boys take to do it?
 A. 7 days B. 8 days C. 8 (1/3) days
 D. 9 (1/3) days E. None of these
54. The difference between compound interest and simple interest on a sum for 2 yrs at 10% per annum, when the interest is compounded annually is Rs 16. If the interest were compounded half yearly, the difference in two interests would be
 A. Rs 24.81 B. Rs 26.90 C. Rs 31.61
 D. Rs 32.40 E. None of these
55. In a circular race of 900m length, A and B start with speeds 27 km/hr and 36 km/hr resp starting at the same time from the same point. When will they meet for the first time at the starting time at the starting point when running in opposite direction?
 A. 2 min 50 sec B. 6 min C. 5 min 40 sec
 D. 7 min E. None of these
57. What is the absolute difference between two numbers?
 I. 60% of the bigger number is equal to the smaller number.
 II. Half of the bigger number is 5 less than the smaller number.
58. Gulraj borrowed a sum of money at CI. What will be the rate of interest?
 I. The amount borrowed is 10 times of the SI in two years at the same rate of interest.
 II. Simple interest fetched on the same sum and same rate of interest at the end of four years is Rs. 1200.
59. A shopkeeper marked the price of an article and gave a discount of 20%. Find the marked price of the article.
 I. The cost price of the article is Rs. 2500.
 II. After giving the discount the shopkeeper gets 28% profit.
60. How many minutes per hour does a person stop?
 I. Without any stoppage a person travels a certain distance at an average speed of 80 km/hr.
 II. The speeds without stoppage and with stoppage are in the ratio of 4 : 3.

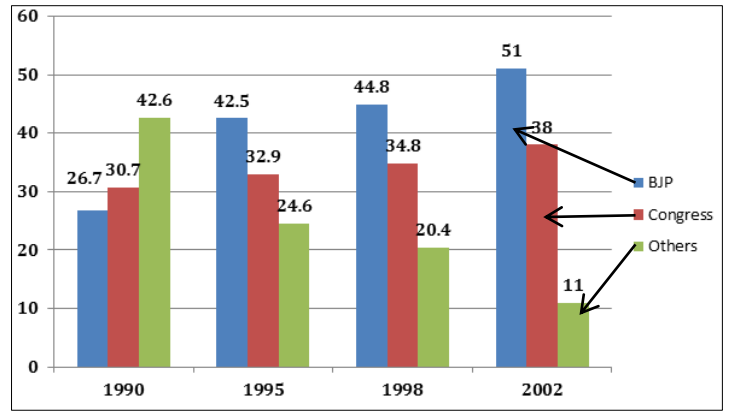
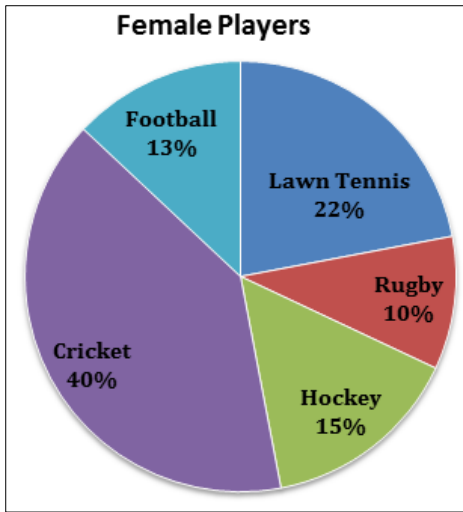
Directions (61-65): Study the following pie-chart carefully to answer these questions: Percentage wise distribution of players who play five different sports.

Total players are 4200, out of which female players are equal to 2000



Directions (56-60): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the questions. Read both the statements and give answer:

- 1) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
 2) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
 3) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
 4) if the data even in both the statements I and II together are not sufficient to answer the question.
 5) if the data in both the statements I and II together are necessary to answer the question
56. 3 men and one woman can complete a piece of work in 4 days. How many days will it take for 2 women and 2 men to complete the same work?
 I. 5 women can complete the same piece of work in 4 days
 II. 2 men and one woman together can complete the same piece of work in 5 days.

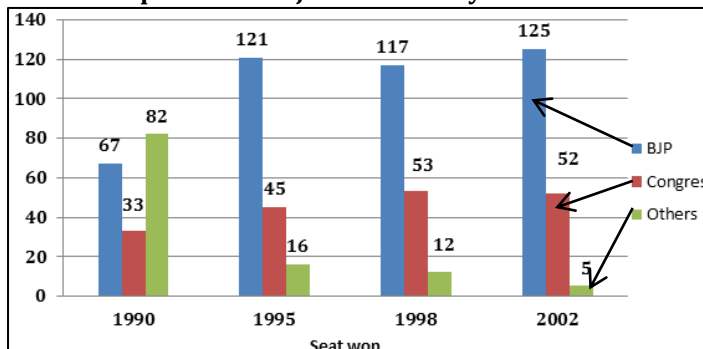


61. What is the average number of players (both male and female) who play Football and Rugby together?
 1) 620 2) 357 3) 230
 4) 630 5) None of these
62. What is the difference between the number of female players who play Lawn Tennis and the number of male players who play Rugby?
 1) 94 2) 84 3) 220
 4) 240 5) None of these
63. What is the ratio of the number of female players who play Cricket to the number of male players who play Hockey?
 1) 20 : 7 2) 4 : 21 3) 20 : 3
 4) 3 : 20 5) None of these
64. What is the total number of the male players who play Football, Cricket and Lawn tennis together?
 1) 1,724 2) 1,734 3) 1,824
 4) 1,964 5) None of these
65. The number of male players who play Rugby is approximately what percentage of the total number of players who play Lawn Tennis?
 1) 33 2) 39 3) 26
 4) 21 5) 43

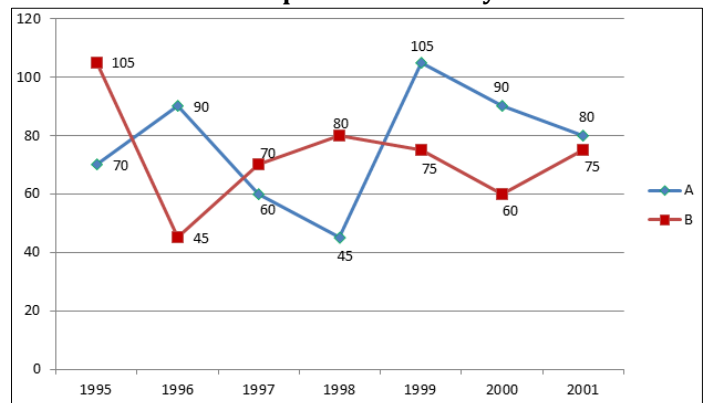
66. If the total no. of valid votes in 2002 Gujarat election was 5 cr then, find the average no. of votes for winning one seat for other political parties.
 1) 11 lakh 2) 1.10 cr 3) 1.10 lakh
 4) Data inadequate 5) None of these
67. In which of the following years the no. of seats won by BJP is maximum with respect to the previous given year?
 1) 1998 2) 2002 3) 1995
 4) 1995 and 2002 5) None of these
68. In 1998, if 2.24 cr people votes were valid for BJP, whereas in 1990 there were 1.228 cr people votes valid for Congress, by what per cent the no. of valid votes is less in 1990 with respect to that in 1998?
 1) 20% 2) 30% 3) 24%
 4) 25% 5) None of these
69. In which of the following years did the BJP secure more than $66\frac{2}{3}\%$ of the total seats?
 1) 1990 2) 1995 3) 1998
 4) 2002 5) None
70. In which of the following years, the difference in the no. of valid votes for any two political parties is the maximum?
 1) 1990 2) 1995 3) 1998
 4) 2002 5) Can't be determined

Direction (66-70): Study the following graphs carefully and answer accordingly:

The following graphs show the seats won and the percentage of valid votes polled for different political parties in Gujarat over the years.



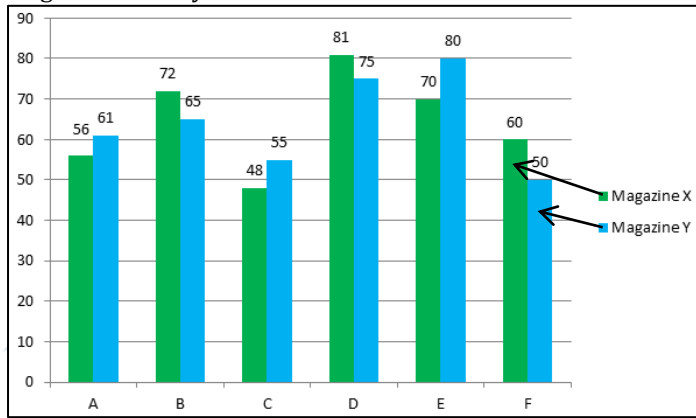
The following graph shows the percentage profit of two companies over the years.



71. In which of the following years the ratio of expenditure to income was the least for company B?
 1) 1996 2) 1999 3) 1998
 4) 2000 5) 1995
72. If the total expenditure of company A in 1997 was Rs. 150 lakhs, what was the total income?
 1) Rs. 240 lakhs 2) Rs. 255 lakhs 3) Rs. 250 lakhs
 4) Data inadequate 5) None of these

73. In which of the following years was the total income more than double the total expenditure in that year for company A?
 1) 1996 2) 1999 3) 2001
 4) 1998 5) 2000
74. In which of the following given years the percentage of expenditure with respect to the income of company B was less than fifty per cent?
 1) 1999 2) 1997 3) 2001
 4) 1998 5) 2000
75. If the total income of company B in 2001 was Rs. 200 lakhs, what was the expenditure of company A in the same year?
 1) Rs. 111.11 lakhs 2) Rs. 114.28 lakhs
 3) Rs. 110 lakhs 4) Can't be determined
 5) None of these

Directions (76-80): The following graph shows the total number of readers (in thousands) of two magazines X and Y in six different cities in year 2013 and the table shows the percentage rise in the number of readers of these two magazines from year 2013 to 2014.



City	% rise in the no. of readers of magazine X(2013-2014)	% rise in the no. of readers of magazine Y(2013-2014)
A	12%	18
B	17%	15%
C	14%	12.4%
D	13.5%	13.2%
E	17.5%	11.5%
F	16%	11%

76. What is the total number of readers of Magazine X from City A and City B together in 2014?
 1) 142340 2) 146960 3) 148520
 4) 152150 5) None of these
77. What is the difference between the total no. of readers of Magazine X from City D in 2014 and the total number of readers of Magazine Y from the same city in the same year?
 1) 7035 2) 7085 3) 7115
 4) 7165 5) 7205
78. The total number of readers of Magazine X from City F in 2014 is approximately what per cent of the total number of readers of Magazine Y from the same city in the same year?
 1) 87.5% 2) 92.6% 3) 108%
 4) 112.8% 5) 125.4%

79. What is the average number of readers of Magazine Y from all the cities together in 2014?
 1) 71075 2) 72050 3) 73025
 4) 74550 5) 75125
80. The total number of readers of Magazine X from City B in 2014 is approximately what per cent more than the total number of readers of the same magazine from City F in 2013?
 1) 39.6% 2) 40.4% 3) 42.2%
 4) 44.5% 5) 47.8%
81. A man borrows Rs 3000 at 10% compound rate of interest. At the end of each year he pays back Rs 1000, how much amount should he pay at the end of the third year to clear all his dues.
 (1)1686 (2)1586 (3)1683
 (4)1583 (5)1783
82. A sum of money is lent out at compound interest rate of 20% per annum for 2 years. It would gain Rs 482 more if interest is compounded half yearly. Find the sum.
 (1) 22000 (2)22500 (3)24000
 (4)20,000 (5)25000
83. A,B and C can do a work in 16 days, $12\frac{4}{5}$ days and 32 days respectively. They started the work together but after 4 days A left. B left the work 3 days before the completion of the work. In how many days was the work completed.
 (1) 12 days (2)8 days (3)12 days
 (4) $10\frac{1}{4}$ (5)9 days
84. A started a work and left after working for 2 days. Then B was called and he finished the work in 9 days. Had A left the work after working for 3 days, B would have finished the remaining work in 6 days. In how many days B can finish the whole work.
 (1) 12 days (2)18 days (3)15 days
 (4)14 (5)16 days
85. 38 men, working 6 hours a day can do a piece of work in 12 days. Find the number of days in which 57 men working 8 hrs a days can do twice the work. Assume that 2 men of the first group do as much work in 1 hr as 3 men of the second group do in 1.5 hrs.
 (1) 24 days (2)28 days (3)38 days
 (4)32days (5)27 days
- Directions (86-90):** What will come in place of the question mark (?) in the following number series?
86. 117 389 525 593 627 (?)
 (1) 654 (2) 640 (3) 634
 (4) 630 (5) None of these
87. 7 11 23 51 103 (?)
 (1) 186 (2) 188 (3) 185
 (4) 187 (5) None of these
88. 18 27 49 84 132 (?)
 (1) 190 (2) 183 (3) 180
 (4) 193 (5) None of these
89. 6 4 4 6 16 (?)
 (1) 70 (2) 16 (3) 32
 (4) 40 (5) None of these
90. 655 439 314 250 223 (?)
 (1) 3335 (2) 3300 (3) 3299
 (4) 3600 (5) None of these
91. Smita was asked to multiply a certain number by 36. She multiplied it by 63 instead and got an answer

3834 more than the correct one. What was the number to be multiplied?

- (1) 152 (2) 126 (3) 142
(4) 148 (5) None of these

92. Manish borrowed a sum of Rs.1150 from Anil at the simple interest of 6 p.c.p.a for 3 years. He then added some more money to the borrowed sum and lent it to Sunil for the same time at 9 p.c.p.a at simple interest. If Manish gains Rs. 274.95 by way of interest on the borrowed sum as well as his own amount from the whole transaction then what is the sum lent by him to Sunil?

- (1) Rs. 1290 (2) Rs. 1785 (3) Rs. 1285
(4) Rs. 1200 (5) None of these

93. One year ago the ratio of the ages of Sarika and Gaurav was 3:4 respectively. One year hence the ratio of their ages will be 10:13 respectively. What is Sarika present age?

- (1) 18 years (2) 20 years (3) 26 years
(4) 19 years (5) None of these

94. Milind takes as much time in running 15 metres as a car takes in covering 40 metres. What will be the

distance covered by Milind during the time the car covers 2 km?

- (1) 1000 metres (2) 600 metres (3) 650 metres
(4) 750 metres (5) None of these

95. Four milkmen rented a pasture. A grazed 15 cows for 4 months, B grazed 12 cows for 2 months, C grazed 18 cows for 6 months and D grazed 16 cows for 5 months. If A's share of rent is Rs 1020, what is C's share of rent?

- (1) Rs 1836 (2) Rs 1360 (3) Rs 816
(4) Cannot be determined (5) None of these

Directions (96-100): In each of these equations, two equations are given. You have to solve these equations and find out the value x and y and -

Give answer:

- (1) If $x < y$ (2) if $x > y$ (3) if $x \leq y$ (4) $x \geq y$
(5) if $x = y$ or relationship cannot be established

96. I. $8x^2 - 106x + 323 = 0$ II. $12y^2 - 109y + 247 = 0$

97. I. $x^2 + 9x + 20 = 0$ II. $y^2 + 7y + 12 = 0$

98. I. $x^2 = 529$ II. $y = \sqrt{529}$

99. I. $x^2 + 13x = -42$ II. $y^2 + 16y + 63 = 0$

100. I. $2x + 3y = 14$ II. $4x + 2y = 16$



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