NUMERICAL ABILITY

Directions (51-55): Study the following table carefully to answer these questions. Percentage of marks obtained by six students in six subjects :

Students	Subjects					
	A (out of 60)	B (out of 40)	C (out of 80)	D (out of 50)	E (out of 120)	F (out of 75)
P	80	65	58	68	75	87
Q	55	70	67	74	88	78
R	74	54	72	84	62	76
S	68	76	82	56	72	64
T	75	68	64	72	80	72
U	82	78	75	67	68	82

51. What is the total marks obtained by Student R in Subjects B, D and E ?
(a) 200 (b) 138 (c) 168
(d) 156 (e) None of these

52. What is the average marks obtained by all the students in Subject 'C'? (rounded off to the nearest integer)
(a) 56 (b) 58 (c) 54
(d) 70 (e) None of these

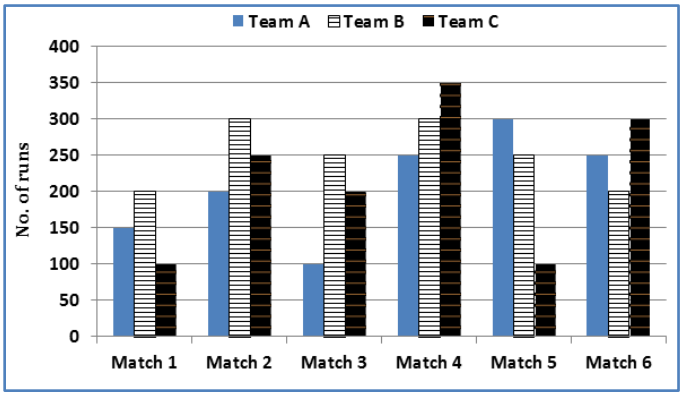
53. What is the average percentage of marks obtained by all the students in Subject 'A' ?
(a) $73\frac{2}{3}$ (b) $43\frac{2}{5}$ (c) $72\frac{1}{3}$
(d) $48\frac{3}{5}$ (e) None of these

54. Approximately what is the overall percentage of marks obtained by Q in all the Subjects ?
(a) 77 (b) 72 (c) 78
(d) 70 (e) 74

55. What is the total marks obtained by all the students together is Subject E?
(a) 522 (b) 488 (c) 445
(d) 534 (e) None of these

Directions (56 – 60) : Study the following graph carefully to answer the following questions:

Number of runs scored by three different teams in six different cricket matches



56. What is the percentage increase in the number of runs scored by Team B in Match 4 as compared to that in the previous match (Match 3)?
(a) 40 (b) 30 (c)20
(d) 25 (e) None of these

57. What is the ratio of the number of runs by Team A in Match 2 to the number of runs scored by Team C in Match 6?
(a) 5 : 4 (b) 2 : 5 (c)2 : 3
(d) 3 : 4 (e) None of these

58. What is the average number of runs scored by Team B in all the matches together?
(a) 250 (b) 275 (c) 200
(d) 300 (e) None of these

59. The number of runs scored by all the teams together in Match 3 is approximately what percentage of the total runs scored by Team C in all the Matches together?
(a) 37 (b) 57 (c) 52
(d) 47 (e) 42

60. In which match is the total runs scored by all the teams together the second highest?
(a) Match 2 only (b) Match 6 only
(c) Match 4 only (d) Both Match 2 and Match 6
(e) Both Match 2 and Match 4

Directions (61-65): What will come in place of question mark (?) in the following questions?

61. $(42)^2 - (38)^2 - (17)^2 = ? \div 0.1$
(a) 4.1 (b) 3.1 (c) 5.1
(d) 6.1 (e) None of these

62. $702 \div 27 + 108 \times 0.75 = ?$
(a) 79 (b) 89 (c) 98
(d) 107 (e) 99

63. $348 \times 9 \times ? = 37584$
(a) 11 (b) 12 (c) 14
(d) 16 (e) None of these

64. $704 \times 710 + 112 \times 108 = ?$
(a) 499840 (b) 511936 (c) 519136
(d) 511396 (e) None of these

65. $21.2 \times 21.2 \times 21.2 = ?$
(a) 9582.128 (b) 9528.128 (c) 5928.128
(d) 9528.218 (e) None of these

Directions (66-70): In each of these questions, two equations are given. You have to solve these equations and find out the values of x and y and-

Give answer
(a) If x > y (b) If x ≥ y
(c)If x < y (d) If x ≤ y
(e) If x = y or relationship cannot be established

66. I. $16x^2 + 20x + 6 = 0$ II. $10y^2 + 38y + 24 = 0$
67. I. $18x^2 + 18x + 4 = 0$ II. $12y^2 + 29y + 14 = 0$
68. I. $8x^2 + 6x = 5$ II. $12y^2 - 22y + 8 = 0$
69. I. $17x^2 + 48x = 9$ II. $13y^2 = 32y - 12$
70. I. $4x + 7y = 209$ II. $12x - 14y = -38$

71. A can do a piece of work in 12 days, B can do the same work in 8 days, and C can do the same job in $\frac{4}{5}$th time required by both A and B. A and B work together for 3 days, then C completes the job. How many complete days did C work?

(a) $2\frac{1}{25}$ (b) 4 (c) 2
(d) $1\frac{11}{25}$ (e)none of these

72. A shopkeeper bought 150 calculators at the rate of Rs. 250 per calculator. He spent Rs. 2500 on transportation and packing. If the marked price of calculator is Rs. 320 per calculator and the shopkeeper gives a discount of 5% on the marked price then what will be the percentage profit gained by the shopkeeper?
(a) 20% (b) 14% (c) 15%
(d) 16% (e) None of these

73. The average weight of 3 men A, B and C is 84 kg. Another man D joins the group and the average now becomes 80 kg. If another man E, whose weight is 3 kg more than that of D, replaces A, then average weight of B, C, D and E becomes 79 kg. the weight of A is:
(a) 70 kg (b) 72 kg (c) 74 kg
(d) 80 kg (e) None of these

74. A retailer purchases a sewing machine at a discount of 15% and sells it for Rs. 1955. In the bargain he makes a profit of 15%. How much is the discount which he got from the whole sale?
(a) Rs. 270 (b) Rs. 290 (c) Rs. 300
(d) 310 (e) None of these

75. The wheat sold by a shopkeeper contained 10% low quality wheat. What quantity of good quality wheat should be added to 150 kg of wheat so that percentage of low quality wheat becomes 5%?
(a)50kg (b)150 kg (c)135 kg
(d)75kg (e) None of these

76. An urn contains 6 red, 4 blue and 2 green balls. 3 balls are picked at random, find the probability that all the 3 balls are of same colour.
(a)$\frac{8}{55}$ (b)$\frac{9}{55}$ (c)$\frac{1}{11}$
(d)$\frac{7}{55}$ (e) None of these

77. The compound interest earned by sanjay on a certain sum of money at the end of 2 years at the rate of 8 p.c.p.a was Rs 1414.4. What was the total amount that sanjay got back at the end of two years in the form of principal plus intrest earned?
(a)Rs 9414.4 (b)Rs 9914.4 (c)Rs 9014.4
(d)Rs 8914.4 (e)none of these

78. If the perimeter of a rectangle and a square are equal and the ratio of 2 adjacent sides of a rectangle is 2:1. Then find the ratio of area of rectangle and area of square.
(a)1:1 (b)1:2 (c)2:3
(d)8:9 (e)none of these

79. A reduction in price of apples enables a person to buy 3 apples for Rs 1 instead of Rs 1.25. What is the percent reduction in price?
(a)20% (b)25% (c)$16\frac{2}{3}$%
(d)12% (e)none of these

80. Speed of a boat is 5 km per hour and the speed of stream is 3 km per hour. If the boat takes 6 hours to go to a place and come back. Then distance of the place is:
(a)7.5km (b)8km (c)9.6km
(d)8.5km (e)none of these

Directions (81-85): What will come in place of the question mark (?) in the following number series?

81. 210 130 60 ? 6 2
(a) 32 (b) 40 (c) 30
(d) 36 (e) None of these

82. 6 15 45 157.5 ? 2835
(a) 610 (b) 620 (c) 630
(d) 640 (e) None of these

83. 567 1140 2290 ? 9206 18434
(a) 4590 (b) 4584 (c) 4542
(d) 4594 (e) None of these

84. 17 38 ? 508 2565 15426
(a) 123 (b) 121 (c) 221
(d) 135 (e) None of these

85. 2 60 10 120 30 ?
(a) 222 (b) 216 (c) 208
(d) 230 (e) None of these

Directions(86-90): The following questions are accompanied by three statements (A) or (I), (B) or (II), and (C) or (III). You have to determine which statements(s) is/are sufficient/necessary to answer the questions.

86. What is the present age of Subir?
I. The present age of Subir is half that of his father.
II. After 5 yrs the ratio of Subir's age to his father's will be 6 : 11.
III. Subir is 5 yrs younger than his brother.
(a) Only I and II (b) Only I and III
(c) Only II and III (d) All I, II and III
(e) Even with all the three statements answer cannot be given.

87. How many articles were sold?
A. Total profit earned was Rs. 1596.
B. Cost price per article was Rs. 632.
C. Selling price per article was Rs. 765.
(a) B and C only (b) A and B only
(c) All A, B and C (d) Any two of these
(e) Can't be Answered.

88. A person travels from X to Y and vice versa. How long will it take to travel both the ways by bus?
A. It takes 15 hours in travelling from X to Y by train and returning by bus.
B. The distance between two places is 360 km.
C. He can save 3 hrs if he travels both the ways by train.
(a) A and B together (b) B and C together
(c) A and C together (d) Any two of them
(e) Question cannot be answered even with information in all three statements.

89. What is the speed of a train 'A' ?
I. Train A crosses 200 metre long train B running in opposite direction in 20 seconds.
II. Speed of train B is 60 kmph.
III. Length of train A is twice that of train B.
(a) I and II only (b) II and III only
(c) I and III only (d) All I, II and III
(e) Question cannot be answered even with information in all three statements.

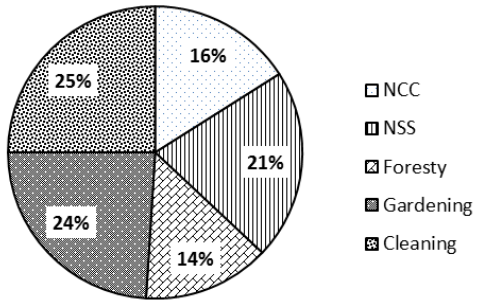
90. What is the area of the right–angled triangle?
I. The perimeter of the triangle is 30 cm.
II. The ratio between the base and the height of the triangle is 5 : 12.
III. The area of the triangle is equal to the area of a rectangle of length 10 cm.
(a) Only B and C together are required

(b) Only A and B together are required
(c) Only either A or B and C together are required
(d) Only A and C together are required
(e) None of these

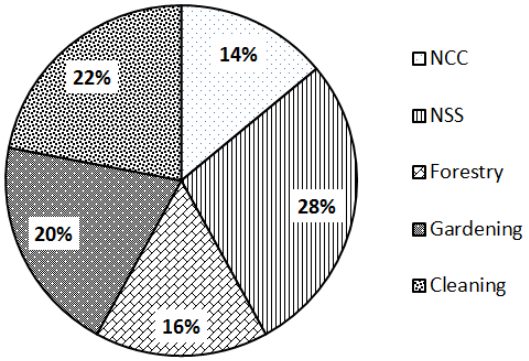
Directions (91-95): Study the pie-chart carefully to answer the following questions:

Percentage of students enrolled in different activities in a school

total no of students=3000



Percentage break-up of girls enrolled in these activities out of the total students



Total no of girls=1750

91. What is the approximate percentage of boys in the school?
(a) 34 (b) 56 (c) 28
(d) 50 (e) 42

92. How many boys are enrolled in NSS and Cleaning together?
(a) 505 (b) 610 (c) 485
(d) 420 (e) None of these

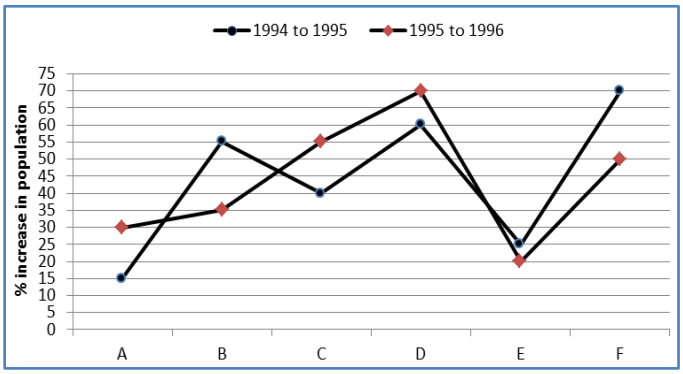
93. What is the total number of girls enrolled in NCC and Foresrty together?
(a) 480 (b) 525 (c) 505
(d) 495 (e) None of these

94. The number of girls enrolled in Gardening form what percent of the total number of students in the school? (round off to two digits after decimal)
(a) 12.35 (b) 14.12 (c) 11.67
(d) 10.08 (e) None of these

95. What is the ratio of the number of girls enrolled in NCC to the number of boys enrolled in NCC?
(a) 47 : 49 (b) 23 : 29 (c)29 : 23
(d) 49 : 47 (e) None of these

Directions (-100): Study the following graph carefully and answer the questions given below :

Percentage growth in population of six states A, B, C, D, E and F from 1994 to 1995 and 1995 to 1996



96. Population of state 'F' in 1995 was approximately what percent of its population in 1996?
(a) 60 (b) 67 (c) 75
(d) 55 (e) Data inadequate

97. If the population of state 'B' in the year 1994 was 5 lakh, what was its population in the year 1996 ?
(a) 9.50 lakh (b) 8 lakh (c)10.4625 lakh
(d) 14.50 lakh (e) 11 lakh

98. If the population of states C and D in 1995 are in the ratio of 2 : 3 respectively and the population of state 'C' in 1994 was 2.5 lakh, what was the population of state 'D' in 1995?
(a) 5.25 lakh (b) 4.75 lakh (c)3.50 lakh
(d) 6 lakh (e) None of these

99. In 1994 the population of states B and D are equal and the population of state B in 1996 is 4 lakh; what approx was the population of state 'D' in 1996?
(a) 3 lakh (b) 3.50 lakh (c) 6 lakh
(d) 5 lakh (e) 4.50 lakh

100. Population of state 'E' in 1994 was what fraction of its population in 1996?
(a) $\frac{4}{5}$ (b) $\frac{3}{2}$ (c)$\frac{5}{8}$
(d) $\frac{3}{4}$ (e) $\frac{2}{3}$