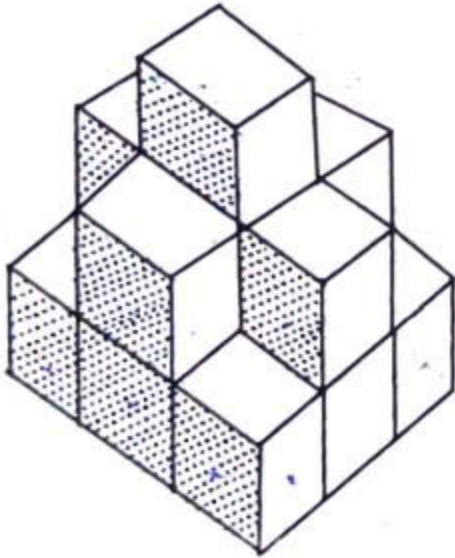


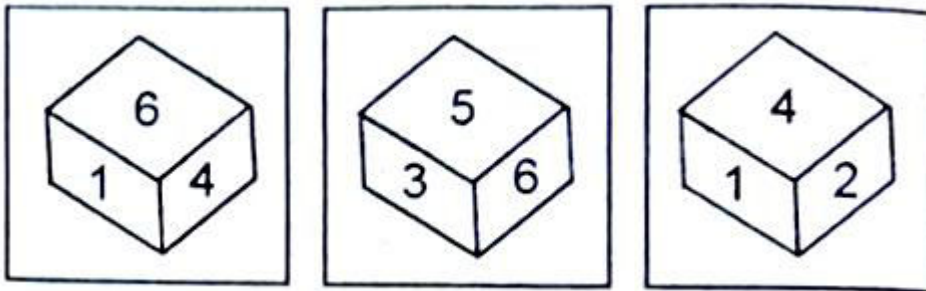
**Directions (Q. No. 1 – 2) :** In each of the following questions, one term in the number series is wrong. Find out the wrong term.

1. 105, 85, 60, 30, 0, -45, -90  
(A) 105  
(B) 60  
(C) 0  
(D) - 45
2. 325, 259, 204, 160, 127, 105, 96  
(A) 325  
(B) 127  
(C) 105  
(D) 96
3. Latex is related to Rubber as Flax is to \_\_\_\_\_.  
(A) Linen  
(B) Wool  
(C) Jute  
(D) Cotton
4. In a certain code language, "GOAT" is written as "45" and "COAT" is written as "41". How is "BOAT" written in that code language?  
(A) 40  
(B) 41  
(C) 42  
(D) 43
5. In a certain code language, TUTORIAL is written as DODNGLCF and DANCE is written as YCJMZ, how is EDUCAITON written in that code?  
(A) ZYMODCLNJ  
(B) ZYOMCDLNJ  
(C) ZYOMDCLNJ  
(D) ZYOTNLCMD
6. The door of Aditya's house faces the East. From the back side of his house, he walks straight 50 metres , then turns to the right and walks 50 metres again. Finally, he truns towards left and stops after walking 25 metres. Now, Aditya is in which direction the starting point?  
(A) South – East  
(B) North – East  
(C) South – West  
(D) North - West
7. A man is facing towards west and turns through  $45^{\circ}$  clock wise again  $180^{\circ}$  clock and then turns through  $270^{\circ}$  anti clock wise . In which direction is he facing now?  
(A) West  
(B) North west  
(C) North  
(D) South West
8. In a row of thirty boys, R is 4<sup>th</sup> from right end and W is 10<sup>th</sup> from the left end. How many boys are there between R and W?  
(A) 15  
(B) 16  
(C) 17  
(D) Cannot be determined
9. How many cubes are there in the figure?



- (A) 15
- (B) 9
- (C) 12
- (D) 8

10. Three positions of a dice are given. Find out which number is found opposite the number 2 in the given cube?



- (A) 6
- (B) 5
- (C) 3
- (D) 1

Directions (Q. Nos 11 and 12) : These questions are based on five words given below:

THE      MOD      CPU      RAM      SHE

11. If the third alphabet in each of the word is changed to the next alphabet in English Alphabet order, How many words thus formed have more than two vowel?

- (A) None
- (B) One
- (C) Two
- (D) Three

12. If the given words are arranged in the order as they would appear in the English dictionary from left to right, which of the following will be the fourth from the left?

- (A) THE
- (B) MOD
- (C) CPU
- (D) RAM

13. Select the option in which the numbers are related in the same way as are the numbers of the following set (24, 10, 392)
- (A) (29, 18, 242)  
 (B) (27, 15, 480)  
 (C) (26, 12, 369)  
 (D) (21, 18, 234)
14. In REQUEST is written as S2R52TU then how will ACID be written?
- (A) 1394  
 (B) IC94  
 (C) BDJE  
 (D) ID3E
15. Nandini is the only daughter of Manda's sister Sangita's brother. How is Nandini related to Madan?
- (A) Daughter  
 (B) Niece  
 (C) Cousin  
 (D) Niece or Daughter
16. Choose the alternative which closely resembles the mirror image of the given combination: TARAIN1014A

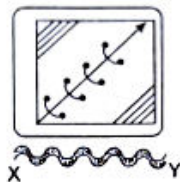
- (I) A 1 0 1 N I A R A T  
 (II) A 1 0 1 4 1 0 1 A  
 (III) A 1 0 1 4 T A R A I N  
 (IV) A 1 0 1 N I A R A T

- (A) 1  
 (B) 2  
 (C) 3  
 (D) 4

17. Choose the correct water image of the question figure, from the given answer figures (assume that water is along XY) :

Question Figure:

Question figure :

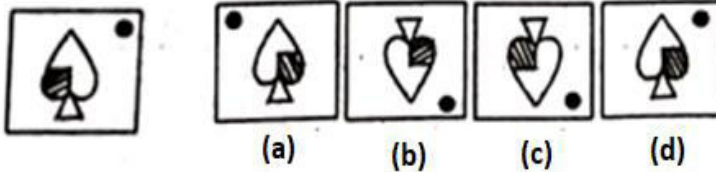


Answer Figures



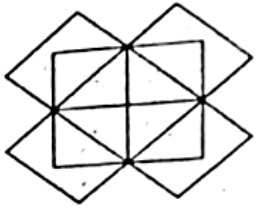
- (1) (2) (3) (4)
- (A) 1  
 (B) 2  
 (C) 3  
 (D) 4

18. Choose the correct mirror image from the answer figures (a) , (b) , (c) and (d)



- (A) (a)
- (B) (b)
- (C) (c)
- (D) (d)

19. How many rectangles are there in the given diagram?



- (A) 20
- (B) 26
- (C) 21
- (D) 14

20. A clock seen through a mirror show quarter past three. What is the correct time shown by the clock?

- (A) 9 : 45
- (B) 9 : 15
- (C) 8 : 45
- (D) 3 : 15

21. Select the correct option that indicates the arrangement of the given words in the order in which they appear in a telephone directory:

- (i) Krishanmurty
- (ii) Krishnamurthy
- (iii) Krishnmurthi
- (iv) Krishanmurthy
- (v) Krishnamurti

- (A) (iv) , (i) , (ii) , (v) , (iii)
- (B) (iv) , (i) , (ii) , (iii) , (v)
- (C) (iv) , (v) , (ii) , (iii) , (i)
- (D) (iv) , (iii) , (v) , (iii) , (ii)

22. In a certain code language, 'VIRTUE' is coded as '201' and 'TRAGEDY' is coded as '218'. How will 'PROFANE' be coded in that language?

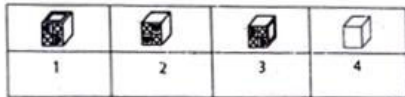
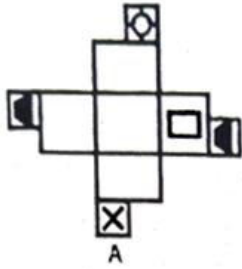
- (A) 570
- (B) 342
- (C) 432
- (D) 456

Directions (Q. No. 3-5) : One hundred and twenty five cubes of the same size are arranged in the form of a cube on a table. Then a column of five cubes is removed from each of the four corners. All the exposed faces of the rest of the solid (except the face touching the table) are coloured red. Now, answer these questions based on the above statement.

23. How many small cubes are there in the solid after the removal of the columns?  
 (A) 120  
 (B) 110  
 (C) 105  
 (D) 100
24. How many cubes do not have any coloured face?  
 (A) 12  
 (B) 24  
 (C) 36  
 (D) 48
25. How many cubes have only one red face?  
 (A) 40  
 (B) 25  
 (C) 20  
 (D) 15
26. David gets on the elevator at the 11<sup>th</sup> floor of a building and rides up at the rate of 57 floors per minute. At the same time, Albert gets on an elevator at the 51<sup>st</sup> floor of the same building and rides down at the rate of 63 floors per minute. If they continue travelling at these rates, then at which floor will their paths cross?  
 (A) 19  
 (B) 28  
 (C) 30  
 (D) 37
27. An egg vendor calls on his first customer and sells half his eggs and half an egg. To the second customer, he sells half of what he has left with and half an egg, and to the third customer, he sells half of what he was then left with and half an egg. However, he did not break any egg. If in the end, the vendor was left with three eggs. How many eggs did he have initially?  
 (A) 26  
 (B) 31  
 (C) 39  
 (D) none of these
28. How many triangles are there in the given figure?



- (A) 29  
 (B) 38  
 (C) 40  
 (D) 35
29. Choose the box that is similar to the box formed from the given sheet of paper ;



- (A) 1, 2 and 3  
 (B) 1, 2 and 4  
 (C) 2 and 3  
 (D) 2, 3 and 4
30. Select the option in which the numbers are related in the same way as are the numbers of the following set, (24, 10, 392) :
- (A) (29, 18, 242)  
 (B) (27, 15, 480)  
 (C) (26, 12, 369)  
 (D) (21, 18, 234)
31. There are deer and peacocks in a zoo. By counting head they are 80. The number of their legs is 200. How many peacocks are there?
- (A) 20  
 (B) 30  
 (C) 50  
 (D) 60
32. What day of the week was 31<sup>st</sup> January, 2007?
- (A) Tuesday  
 (B) Monday  
 (C) Thursday  
 (D) Wednesday
33. Arrange the following words in the order in which they appear in an English dictionary:
- (i) Meticulous  
 (ii) Metric  
 (iii) Method  
 (iv) Mettle  
 (v) Meter
- (A) (v) , (iii) , (i) , (iv) , (ii)  
 (B) (v) , (iii) , (i) , (ii) , (iv)  
 (C) (iii) , (iv) , (v) , (i) , (ii)  
 (D) (v) , (i) , (iii) , (ii) , (iv)

34. Rasik walked 20m towards north. Then he turned right and walks 30m. Then he turns right and walks 35m. Then he turns left and walks 15m. Finally he turns left and walks 15m. In which direction and how many metres is he from the starting position?
- (A) 15m West  
(B) 30m East  
(C) 30m West  
(D) 45m East
35. How is 'sure' written in a code language?
- I. 'he is sure' written as 'ja ha main in that code language  
II. 'is she sure' written as 'Ka ja main in that that code language
- (A) Ja  
(B) Ja or ma  
(C) Ma  
(D) Ha
36. Pointing to a woman, Nirmal said, "She is the daughter of my wife's grandmother's only child". How is the woman related to Nirmal if she is not the wife of Nirmal?
- (A) Wife  
(B) Sister-in-law  
(C) Sister  
(D) None of these
37. If ZIP = 198 and ZAP = 246, then how will you code VIP?
- (A) 174  
(B) 222  
(C) 888  
(D) 990

**Directions (Q. No. 38-40) :** Read the information given below to answer these questions:

Rani and Shreshtha are a married couple having two daughters, Mdha and Deepti. Deepti is married to Anurag who is the son of Garima and Tarun. Nidhi is the daughter of Anurag. Komal, who is Anurag's sister, is married to Harshit and has two sons, Aman and Prem. Prem is the grandson of Garima and Tarun.

38. What is the relationship between Aman and Nidhi?

- (A) Cousins  
(B) Husband Wife  
(C) Father-Daughter  
(D) Uncle-Niece

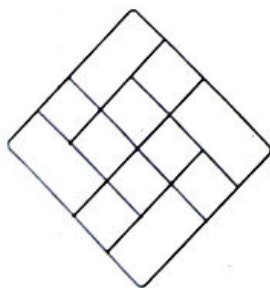
39. How is Komal related to Deepti?

- (A) Aunt  
(B) Sister-in-law  
(C) Sister  
(D) None of these

40. Which of the following is true?

- (A) Tarun is Deepti's maternal uncle  
(B) Aman is the son of Medha  
(C) Garima is harshit's mother-in-law  
(D) Nidhi is cousin of Komal

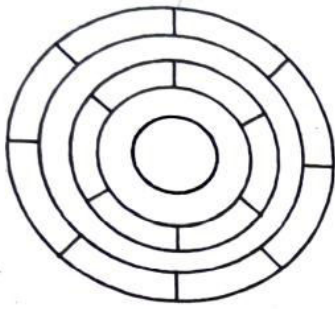
41. In a certain code, MOTHER is written as ONHURF. How will ANSWER be written in that code?  
 (A) NBXSSE  
 (B) NBWRRF  
 (C) MAVSPE  
 (D) NBWTRF
42. Find the odd one out:  
 (A) Platform  
 (B) Dock  
 (C) Bus-stand  
 (D) Park
43. Find the odd one out :  
 (A) Lion  
 (B) Tiger  
 (C) Fox  
 (D) Deer
44. A doctor said to his compounder "I go to see the patients at their residence after every 3 hours 30 minutes. I have already gone to the patient 1 hour 20 minutes ago and next time I shall go at 1 : 40 P.M. "At what time this information was given to the compounder by the doctor?  
 (A) 11 : 30 A.M.  
 (B) 11 : 20 A.M.  
 (C) 10 : 10 A.M.  
 (D) None of these
45. If in the word SEPTUAGENARIAN first three and then next three letters are written in reverse order and the rest of the letters are written as they appear in English alphabet, the positions of how many letters get changed in the new arrangement?  
 (A) Nil  
 (B) 2  
 (C) 10  
 (D) 12
46. How many rhombuses are in the figure?



- (A) 16  
 (B) 13  
 (C) 14  
 (D) 17

47. What is the minimum number of different colours required to paint the given figure such that no two adjacent regions have the same adjacent regions have the same colour?





- (A) 3
- (B) 4
- (C) 5
- (D) 6

48. Seven years from now, Anamika will be as old as Malini was 4 years ago. Srinidhi was born 2 years ago. The average age of Anamika, Malini and Srinidhi 10 years from now will be 33 years. What is the present age of Anamika?

- (A) 30 years
- (B) 31 years
- (C) 29 years
- (D) 28 years

49. Nurture : Neglect :: Denigrate : ?

- (A) Reveal
- (B) Extol
- (C) recognise
- (D) Calumniate

**Directions (Q. No. 50) :** In each of the following questions, one term in the number series is wrong. Find out the wrong term.

50. 1, 3, 12, 25, 48 :

- (A) 3
- (B) 12
- (C) 25
- (D) 48

51. If a number is selected from numbers 1 to 25, then find the probability that it is a prime number:

- (A)  $\frac{3}{5}$
- (B)  $\frac{1}{5}$
- (C)  $\frac{7}{25}$
- (D)  $\frac{9}{25}$

52. How many natural numbers are there between 23 and 100 which are exactly divisible by 6?

- (A) 8
- (B) 11
- (C) 13
- (D) 12

53. If a set has 5 elements, then the power set that set has \_\_\_\_\_ elements.

- (A) 25
- (B) 32
- (C) 10

- (D) None of these
54. A bag contains 3 green, 4 blue and 2 orange marbles. If a marble is picked at random then find the probability of not getting an orange marble.
- (A)  $\frac{4}{9}$   
(B)  $\frac{7}{9}$   
(C)  $\frac{1}{4}$   
(D)  $\frac{1}{3}$
55. If  $x$  is any number chosen from 1, 2, 3 and  $y$  is selected from the numbers 1, 4, 9, then  $P(xy < 9) = ?$
- (A)  $\frac{2}{3}$   
(B)  $\frac{5}{9}$   
(C)  $\frac{7}{9}$   
(D)  $\frac{1}{3}$
56. If the angle of elevation of the top of tower from a point 20m away from the foot is  $45^\circ$ , then find height of the tower:
- (A) 40m  
(B) 20m  
(C) 30m  
(D) 25m
57. If a circle and a semi- circle have the same radius as 14cm, then the ratio of the perimeters is \_\_\_\_\_.
- (A) 5 : 1  
(B) 6 : 7  
(C) 11 : 9  
(D) 12 : 9
58. If the height of the cone is twice of the radius of its base circle then find the ratio of the area of base with total surface area:
- (A)  $1 : \sqrt{5}$   
(B)  $2 : \sqrt{3}$   
(C) 3 : 2  
(D) 4 : 3
59. A single letter is drawn at random from the word "ASPIRATION" the probability that it is a vowel is:
- (A)  $\frac{1}{2}$   
(B)  $\frac{1}{3}$   
(C)  $\frac{1}{4}$   
(D) 0
60. If 4 coins are tossed once then what is the probability of getting exactly 2 heads?
- (A)  $\frac{7}{8}$   
(B)  $\frac{5}{8}$   
(C)  $\frac{1}{2}$   
(D)  $\frac{3}{8}$
61. A and B are two independent events such that  $P(A \cup B') = 0.8$ , and  $P(A) = 0.3$ , then  $P(B) = ?$
- (A)  $\frac{2}{7}$   
(B)  $\frac{2}{3}$   
(C)  $\frac{3}{8}$   
(D)  $\frac{1}{8}$

62. Find the probability of getting a number greater than 3 in rolling of a dice once:  
(A)  $1/2$   
(B)  $1/3$   
(C)  $1/4$   
(D)  $1/5$
63. What is the sum of two consecutive even numbers, the difference of whose squares is 84 ?  
(A) 34  
(B) 38  
(C) 42  
(D) 46
64. What is the geometric mean of 4 and 16?  
(A) 2  
(B) 4  
(C) 6  
(D) 8
65. The average of 30 numbers is 12. The average of the first 20 of them is 11 and that of the next 9 is 10. The last number is :  
(A) 60  
(B) 45  
(C) 50  
(D) 40
66. The average of two numbers A and B is 20, that of B and C is 19 and of C and A is 21. What is the value of A?  
(A) 20  
(B) 24  
(C) 22  
(D) 18
67. Find the sum of deviations of the variate values 3, 4, 6, 7, 8 and 14 from their mean?  
(A) 0  
(B) 3  
(C) 4  
(D) 6
68. What is the mean of 1<sup>st</sup> 5 multiple of 7?  
(A) 28  
(B) 35  
(C) 14  
(D) 21
69. Find out the algebraic sum of deviation of a set of P values from their mean:  
(A)  $P - 1$   
(B) 0  
(C) P  
(D)  $P + 1$
70. The median of the following data:
- | Class interval | Frequency |
|----------------|-----------|
| 0 – 10         | 8         |
| 10 – 20        | 16        |
| 20 – 30        | 36        |

30 – 40                      34  
 40 – 50                      6

- (A) 27.22  
 (B) 24  
 (C) 50  
 (D) 36

71.  $\frac{1}{1.3} + \frac{1}{3.5} + \frac{1}{5.7} + \frac{1}{7.9} = ?$

- (A)  $\frac{5}{11}$   
 (B)  $\frac{6}{11}$   
 (C)  $\frac{9}{4}$   
 (D)  $\frac{4}{9}$

72. Determine the smallest 3-digit number which is exactly divisible by 6 and 12?

- (A) 96  
 (B) 84  
 (C) 108  
 (D) 120

73. What is the HCF of  $\frac{1}{5}$ ,  $\frac{2}{7}$  and  $\frac{3}{11}$ ?

- (A)  $\frac{1}{385}$   
 (B) 6  
 (C)  $\frac{1}{35}$   
 (D)  $\frac{5}{77}$

74.  $0.03 \times 0.0165$  is equal to:

- (A)  $4.95 \times 10^{-3}$   
 (B)  $4.95 \times 10^{-4}$   
 (C)  $4.95 \times 10^{-5}$   
 (D)  $4.95 \times 10^{-6}$

75.  $\frac{(799 + 267)^2 - (799 - 267)^2}{799 \times 267} = ?$

- (A) 532  
 (B) 1066  
 (C) 2  
 (D) 4

76.  $\overline{0.68} + \overline{0.73} = ?$

- (A)  $\overline{1.41}$   
 (B)  $\overline{1.42}$   
 (C)  $\overline{0.141}$   
 (D) None of these

77. Two numbers are 20% and 40% more than the third number respectively. the ratio of first and second number is  
(A) 7 : 6  
(B) 7 : 5  
(C) 6 : 7  
(D) 5 : 7
78. A fruit seller has some oranges. He sells 30% oranges and still has 140 oranges. Originally he had:  
(A) 140 oranges  
(B) 420 oranges  
(C) 200 oranges  
(D) 60 oranges
79. 11 oranges are bought for Rs. 10 and 11 oranges for Rs. 11. What is the gain in percentage?  
(A) 11%  
(B) 21%  
(C) 25%  
(D) 28%
80. The difference between Compound Interest and Simple Interest for 2 years at 5% per annum is Rs. 2.50. Find the sum:  
(A) 500  
(B) 1500  
(C) 1000  
(D) None of these
81. A can finish a work in 18 days and B can do the same work in 15 days. B worked for 10 days and left the job. In how many days will 10 women complete?  
(A) 5  
(B)  $5\frac{1}{2}$   
(C) 6  
(D) 8
82. The ratio between the speeds of two trains is 7 : 8. If the second train runs 400 kms in 4 hours, then the speed of first train is  
(A) 70 km/h  
(B) 75 km/h  
(C) 84 km/h  
(D) 87.5 km/h
83.  $\sqrt{1.5625} = ?$   
(A) 1.05  
(B) 1.25  
(C) 1.45  
(D) 1.55
84. If  $\alpha$  and  $\beta$  are the roots of quadratic equation such that  $\alpha + \beta = 12$  and  $\alpha - \beta = 4$ , then the equation is  
(A)  $x^2 - 12x + 32 = 0$   
(B)  $x^2 - 12x - 32 = 0$   
(C)  $x^2 + 12x + 32 = 0$   
(D)  $x^2 + 12x - 32 = 0$
85. If for  $p \neq 1$ ,  $p^{5x+3} = 1$  then  $x = ?$

- (A)  $-\frac{2}{5}$   
 (B)  $\frac{3}{5}$   
 (C)  $-\frac{3}{5}$   
 (D)  $\frac{2}{5}$

86. If  $n$  is a natural number, then  $(6n^2 + 6n)$  is always divisible by:

- (A) 6 only  
 (B) 6 and 12 only  
 (C) 12 only  
 (D) 18 only

87. If  $\frac{x}{5} = \frac{y}{9}$  then  $(x+5):(y+9) = ?$

- (A) 3 : 5  
 (B) 13 : 8  
 (C) 5 : 9  
 (D) 9 : 5

88. The fourth proportional to 5, 8, 15 is :

- (A) 18  
 (B) 21  
 (C) 19  
 (D) 24

89. If  $\begin{vmatrix} x+y & y \\ 3-x & 3 \end{vmatrix} = \begin{vmatrix} 2 & -1 \\ 0 & 3 \end{vmatrix}$  then the value of  $x$  and  $y$  is :

- (A) 3, -1  
 (B) -3, -1  
 (C) -3, 1  
 (D) 3, 1

90. If  $M = \begin{vmatrix} -1 & 0 \\ 2 & 3 \end{vmatrix}$ ,  $N = \begin{vmatrix} 0 & -2 \\ -2 & 3 \end{vmatrix}$ , then  $2M + N$  is :

- (A)  $\begin{vmatrix} -2 & -2 \\ 2 & 6 \end{vmatrix}$   
 (B)  $\begin{vmatrix} -2 & -2 \\ 2 & 9 \end{vmatrix}$   
 (C)  $\begin{vmatrix} -2 & 2 \\ 2 & 9 \end{vmatrix}$   
 (D)  $\begin{vmatrix} -2 & -2 \\ 2 & 9 \end{vmatrix}$

91. For what value of  $\alpha$  does the equations  $\alpha x + y = 3$ ,  $2x - 3y = 5$  has no solution ?

- (A)  $-\frac{2}{3}$   
 (B)  $\frac{3}{4}$   
 (C)  $\frac{1}{5}$

- (D)  $\frac{3}{5}$
92. The discriminant of the quadratic equation  $3x^2 - 5x + 3 = 0$  is :
- (A) -5  
(B) 3  
(C) -11  
(D) -1
93. If a pair of linear equation is given by  $a_1x + b_1y + c_1 = 0$  and  $a_2x + b_2y + c_2 = 0$  where  $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$  then :
- (A) The pair of linear equation is consistent  
(B) The pair of linear equation is inconsistent  
(C) The pair of linear equation is independent  
(D) The pair of linear equation is dependent
94. If the 7th and 13th terms of an A.P. be 34 and 64 respectively, then its 18th term is:
- (A) 87  
(B) 88  
(C) 89  
(D) 100
95. If the sum of n terms of an A.P. is  $3n^2 + 5n$  then which of its terms is 164 ?
- (A) 26th  
(B) 27th  
(C) 30th  
(D) None of these
96. If the sum of n terms of an A.P. be  $3n^2 + n$  and the common difference is 6, then its 1st term is :
- (A) 2  
(B) 3  
(C) 1  
(D) 4
97. What is the sum of all odd terms between 2 and 100 ?
- (A) 2687  
(B) 2600  
(C) 2768  
(D) 2967
98. In a group of 500 students, there are 475 students who can speak Hindi and 200 can speak English. What is the number of students who can speak Hindi only?
- (A) 475  
(B) 300  
(C) 175  
(D) 500
99. In a cricket match, a batsman hit a boundary 15 times out of 60 balls he plays. Find the probability that he didn't hit a boundary in next ball:
- (A) 0.75  
(B) 0.15  
(C) 0.60  
(D) 0.18
100. Find the probability that a non-leap year has 53 Sundays:

- (A) 2/7
- (B) 5/7
- (C) 1/7
- (D) 6/7

