

MATHS, STATS & REASONING**All Questions is compulsory.**

1. If the matrix $A = \begin{bmatrix} 6 & x & 2 \\ 2 & -1 & 2 \\ -10 & 5 & 2 \end{bmatrix}$ is a singular matrix, then the value of x is :
- (a) 3
(b) -3
(c) 2
(d) -2
2. If A is a square matrix such that $|A| = 5$, then the value of $|A A^T|$ is:
- (a) 125
(b) 625
(c) 25
(d) 45
3. The number of all possible matrices of order 3×3 with each entry 0 or 1 is :
- (a) 27
(b) 18
(c) 81
(d) 512
4. What should be the least number of year in which the simple interest on Rs. 2,600 at $6\frac{2}{3}\%$ p.a. will be an exact number of rupees?
- (a) 2 years
(b) 3 years
(c) 4 years
(d) 5 years
5. For a variable the mean is 10 and the coefficient of variation is 50. Then the variance is
- (a) 5
(b) 20
(c) 400
(d) 25
6. If the maximum and minimum values of 10 observations are 40 and 10 then coefficient of range is
- (a) $\frac{5}{3}$
(b) $\frac{3}{5}$
(c) 30
(d) none of these

7. The median of $X, \frac{x}{2}, \frac{x}{3}, \frac{x}{5}$ is 10.
Find x where $X > 0$
- (a) 24
(b) 32
(c) 8
(d) 16
8. The average salary of 50 men was Rs. 80 but if it was found the salary of two of them were Rs. 82 and 96 which was wrongly taken as Rs. 28 and 69. The revised average salary is -
- (a) 78.56
(b) 82.92
(c) 85.26
(d) 81.62
9. What is the value of x satisfying the equation
 $16 \left(\frac{a-x}{a+x} \right)^3 = \frac{a+x}{a-x}$
- (a) $\frac{a}{2}$
(b) $\frac{a}{3}$
(c) $\frac{a}{4}$
(d) 0
10. A sum of money amounts to Rs. 5,200 in 5 years and to Rs. 5,680 in 7 years at simple interest. The rate of interest per annum is :-
- (a) 3%
(b) 4%
(c) 5%
(d) 6%
11. Divide Rs. 8,840 between A and B so that the amount received by A at the end of 8 years may be equal to the amount received by B at the end of 10 years, compound interest being at 10% per annum. Then the part of B :
- (a) Rs. 4,840
(b) Rs. 4,000
(c) Rs. 3,840
(d) Rs. 3,600
12. What is the G.M. for the numbers 2,4,8,16,32,64?
- (a) $2^{5/2}$
(b) $2^{7/2}$
(c) 33
(d) None

13. Find the harmonic mean of the following numbers : $1, \frac{1}{3}, \frac{1}{5}, \dots, \frac{1}{2n-1}$

- (a) $\frac{1}{n+1}$
(b) $\frac{1}{n-1}$
(c) $\frac{2}{n}$
(d) $\frac{1}{n}$

14. In the line $y = 19 - \frac{5x}{2}$, b_{yx} is equal to

- (a) $19/2$
(b) $5/2$
(c) $-5/2$
(d) None

15. Suppose the revenues of a company for five years are:-

Year	2014	2015	2016	2017	2018
Revenues	100	120	160	210	280

Calculate compound annual growth rate.

- (a) 27.74%
(b) 29.35%
(c) 25.43%
(d) 31.60%
16. If the rate of interests are 6%, 8% and 10% yearly for first, second and third year respectively, then the compound interest for 3 years on the amount Rs. 60,000 will be:-
(a) Rs. 19,446
(b) Rs. 15,556.80
(c) Rs. 16,602
(d) Rs. 75,556.80
17. A car that costs Rs. 6,00,000 is bought by paying Rs. 1,00,000 as down-payment and equal annual payments for three-years. What is the annual installment if the interest is paid at 8% on the remaining amount compounded annually?
(a) Rs. 1,94,016.75
(b) Rs. 2,94,016.75
(c) Rs. 1,61,013.75
(d) Rs. 1,74,016.75
18. If the rank coefficient between debenture price and share price is found to be 0.143 and the sum of squares of the difference in the rank is 48, what is the number of share selected for study?
(a) 5
(b) 7
(c) 12
(d) 6

19. If Fisher's index = 150 and Paasche's index = 144, then Laspeyre's index is
- (a) 147
 - (b) 156.25
 - (c) 160.17
 - (d) 138
20. During a certain period the cost of living Index number goes up from 110 to 200 and the salary of the worker is also raised from Rs. 325 to Rs. 500. Does the worker :
- (a) gain
 - (b) loses
 - (c) fully compensated
 - (d) gain by 10%
21. For Finding correlation between two attributes, we consider
- (a) Pearson's correlation coefficient
 - (b) Scatter diagram
 - (c) Spearman's rank correlation coefficient
 - (d) Coefficient of document deviations.
22. Regression coefficient are
- (a) dependent of change of origin and of scale.
 - (b) independent of both change of origin and of scale.
 - (c) dependent of change of origin but not of scale.
 - (d) independent of change of origin but not of scale
23. A man invested $\frac{1}{3}$ of his capital at 7% , $\frac{1}{4}$ at 8% and the remainder at 10% Simple interest. If his annual income is Rs. 561, the capital is:
- (a) Rs. 5400
 - (b) Rs. 6000
 - (c) Rs. 6600
 - (d) Rs. 7200
24. The future value of an annuity of Rs. 6000 is made annually for 8 years at interest rate of 9% compounded annually is :
- (a) Rs. 66170.84
 - (b) Rs. 62195.93
 - (c) Rs. 58125.24
 - (d) None of these
25. What is the number of ways of arranging the letters of the word "BANANA" so that no two N's appear together ?
- (a) 40
 - (b) 60
 - (c) 80
 - (d) 100
26. Which are of the following functions $f : \mathbb{R} \rightarrow \mathbb{R}$ is injective?
- (a) $f(x) = |x|$ for every $x \in \mathbb{R}$
 - (b) $f(x) = x^2$ for every $x \in \mathbb{R}$
 - (c) $f(x) = 5$ for every $x \in \mathbb{R}$
 - (d) $f(x) = -x$ for every $x \in \mathbb{R}$

27. The regression equation of y on x is $y = -3 + 0.5x$ and that of x on y is $x = -7 + By$. If the correlation co-efficient between x and y is 0.1, then $B =$
- (a) 0.5
(b) -0.5
(c) 0.02
(d) -0.02
28. Five competitors in a contest are ranked by two judges in the order 1, 2, 3, 4, 5 and 5, 4, 3, 2, 1 respectively. Calculate the Spearman's rank correlation coefficient.
- (a) -0.5
(b) -1
(c) 0.5
(d) 1
29. Purchasing power of money is
- (a) Inversely proportional to price index number
(b) Directly proportional to price index number
(c) Both (a) and (b)
(d) None of these
30. Assuming that the discount rate is 7% per annum, how much would you pay to receive Rs. 90 growing at 5%, annually, forever?
- (a) 4500
(b) 2500
(c) 4000
(d) 5000
31. How many diagonals are there in a polygon with n sides?
- (a) $\frac{n(n-1)}{2}$
(b) $\frac{n(n-2)}{3}$
(c) $\frac{n(n-3)}{2}$
(d) $\frac{n(n-2)}{6}$
32. The value of $\frac{1}{\log_3 60} + \frac{1}{\log_4 60} + \frac{1}{\log_5 60}$ is :-
- (a) 0
(b) 1
(c) 5
(d) 60
33. The sides of a triangle are in the ratio $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. If the perimeter of the triangle is 52 cm, the length of the smallest side is :-
- (a) 9 cm
(b) 18 cm
(c) 24 cm
(d) 12 cm

34. Given the prices of 2 commodities are increased by 10% and 20% respectively and the price of another commodity is decreased by 30%. The relative importance of 3 commodities are in the ratio 3:3:1. Find weighted price index number.
- (a) 80
 - (b) 109
 - (c) 108.5
 - (d) 110
35. The average age of a group of 10 students was 20 years. The average age increased by 4 years when two new students joined the group. What is the average age of two new students who joined the group?
- (a) 22 years
 - (b) 30 years
 - (c) 44 years
 - (d) 32 years
36. If the difference between mean and Mode is 63, then the difference between mean and Median will be _____.
- (a) 63
 - (b) 31.5
 - (c) 21
 - (d) None of the above
37. Age of applicants for life insurance and the premium of insurance-correlation are :
- (a) positive
 - (b) negative
 - (c) zero
 - (d) None
38. If $u = 2x+5$, $v=-3y +1$, and the regression coefficient of y on x is -1.2 , the regression coefficient of v on u is :
- (a) 1.8
 - (b) -1.8
 - (c) 3.26
 - (d) 0.8
39. The missing number in the series:-24, 60, 120, 210, ?
- (a) 300
 - (b) 336
 - (c) 420
 - (d) 525
40. If $GO=32$, $SHE=49$, then $SOME$ will be equal to:
- (a) 56
 - (b) 58
 - (c) 62
 - (d) 64
41. A man starts from a point, walk 8 km towards North, turns right and walks 12 km, turns left and walks 7 km turns and walks 20 towards South, turns right and walks 12 km. In which direction is he from the starting point ?
- (a) North
 - (b) South
 - (c) West
 - (d) East

42. If $f(x) = {}^x c_2$, then $f^{-1}(3)$ is equal to:-
- (a) $-\frac{5}{2}$
 - (b) $-\frac{2}{5}$
 - (c) $\frac{5}{2}$
 - (d) $\frac{2}{5}$
43. A bag contains coins of Rs. 1, 50 paise and 25 paise in the ratio 4:5:6. If the total amount in the bag is Rs. 120, then the number of coins of 25 paise, is :-
- (a) 60
 - (b) 75
 - (c) 90
 - (d) 96
44. A square is drawn by joining mid-points of the sides of a square. Another square is drawn inside the second square in the same way and the process is continued indefinitely. If the side of the first square is 16 cm, then what is the sum of the areas of all the squares ?
- (a) 341 sq. cm
 - (b) 512 sq. cm
 - (c) 1024 sq. cm
 - (d) $\frac{512}{3}$ sq. cm
45. How many different words can be formed with the letters of the word 'MISSISSIPPI'?
- (a) 36450
 - (b) 35460
 - (c) 34560
 - (d) 34650
46. In a city, three daily news paper A, B and C are published, 42% read A, 51% read B, 68% read C, 30% read A and B, 28% read B and C, 36% read A and C, 8% do not read any of the three newspapers. What is the percentage of person who read only one paper ?
- (a) 38%
 - (b) 48%
 - (c) 51%
 - (d) None

47. $\int \frac{dx}{x + \sqrt{x^2 - 1}}$
- (a) $\frac{x^2}{2} - \frac{x}{2}\sqrt{x^2 + 1} + \frac{1}{2} \log (x + \sqrt{x^2 - 1}) + C$
- (b) $x - \frac{x}{2}\sqrt{x^2 - 1} - \frac{1}{2} \log (x + \sqrt{x^2 - 1}) + C$
- (c) $\frac{x^2}{2} + \frac{x}{2}\sqrt{x^2 - 1} + \frac{1}{2} \log (x + \sqrt{x^2 - 1}) + C$
- (d) $\frac{x^2}{2} - \frac{x}{2}\sqrt{x^2 - 1} + \frac{1}{2} \log (x + \sqrt{x^2 - 1}) + C$
48. The odds are 9:5 against a person who is 50 years living till he is 70 and 8:6 against a person who is 60 living till he is 80. Find the probability that at least one of them will be alive after 20 years:
- (a) $\frac{11}{14}$
- (b) $\frac{22}{49}$
- (c) $\frac{31}{49}$
- (d) $\frac{35}{49}$
49. The area of a normal Curve is
- (a) 90%
- (b) 95%
- (c) Unity
- (d) Infinity
50. K is a place which is located 2 km away in the north-west direction from the capital P. R is another place that is located 2 km away in the south-west direction from K. M is another place and that is located 2 km away in the North-west direction from R. T is yet another place that is located 2 km away in the south-west direction from M. In which direction is T located in relation to P ?
- (a) South-West
- (b) North-West
- (c) West
- (d) North
51. Next term of the series :
120, 168, 288, 360, 528, ?
- (a) 624
- (b) 728
- (c) 840
- (d) 900

52. $\frac{2^{n+3} - 10 \times 2^{n+1}}{2^{n+1} \times 6}$ is equal to:-
- (a) -1
 - (b) 1
 - (c) 0
 - (d) 2
53. The numbers a, X, c are in A.P. if $X = 25$ and a, Y, c are in G.P. if $Y = 7$, then the value of (a, c) are:
- (a) 1, 16
 - (b) 1, 25
 - (c) 1, 36
 - (d) 1, 49
54. $\log (1^3 + 2^3 + 3^3 + \dots + n^3)$ is equal to :-
- (a) $2 \log n + 2 \log (n+1) - 2 \log 2$
 - (b) $\log n + 2 \log (n+1) - 2 \log 2$
 - (c) $2 \log n + \log (n+1) - 2 \log 2$
 - (d) None
55. If the difference between the mean and the variance of binomial distribution for 5 trials is $\frac{5}{9}$, the distribution is of the form
- (a) $\left(\frac{1}{4} + \frac{3}{4}\right)^5$
 - (b) $\left(\frac{1}{9} + \frac{8}{9}\right)^5$
 - (c) $\left(\frac{2}{3} + \frac{1}{3}\right)^5$
 - (d) None of these
56. If the 1970 index with base 1965 is 200 and 1965 index with base 1960 is 150, the index 1970 on base 1960 will be:
- (a) 700
 - (b) 300
 - (c) 500
 - (d) 600
57. When the two curves of ogive intersect, the point of intersection provides:
- (a) First Quartile
 - (b) Second Quartile
 - (c) Third Quartile
 - (d) Mode

58. If a sum triple itself in 6 years at C.I. In how many years it will be 27 times itself at the same rate?
(a) 18
(b) 54
(c) 12
(d) 27
59. Introducing a man, a woman said, "His wife is the only daughter of my mother." How is the woman related with the man ?
(a) Sister-in-law
(b) Wife
(c) Aunt
(d) Mother-in-law
60. Five Friends P, Q, R, S and T are sitting in a row facing North. Here S is between T and Q and Q is to the immediate left of R. P is to the immediate left of T. Who is in the middle?
(a) S
(b) T
(c) Q
(d) R
61. You go North, turn right, then right again and then go to the left. In which direction are you now ?
(a) South
(b) East
(c) West
(d) North
62. On a certain sum, the simple interest at the end of $6\frac{1}{4}$ year becomes $\frac{3}{8}$ of the sum. The rate of Percentage is:
(a) 7%
(b) 6%
(c) 5%
(d) $5\frac{1}{2}\%$
63. The value of $A^{\frac{1}{2}} \times A^{\frac{1}{4}} \times A^{\frac{1}{8}} \dots \infty$
(a) zero
(b) Infinity
(c) $\frac{1}{2}$
(d) A
64. Cost of paper for a week under the heads raw material, labour, direct production and others were Rs. 23, Rs. 18, Rs. 32, Rs. 17 respectively. What is the difference between the central angles for the largest and smallest components of cost of the paper?
(a) 60
(b) 68
(c) 72
(d) 56

65. Coefficient of Variation if Median = 23, Mode = 29 and Variance = 100 is
(a) 10%
(b) 50%
(c) 20%
(d) None of these
66. If the standard deviation of 0, 1, 2, 3... 9 is k, than standard deviation of 10, 11, 12, 13,... 19 is
(a) 10k
(b) k+10
(c) k
(d) $k + \sqrt{10}$
67. The standard deviation calculated from a set of 32 observations is 5. If the sum of the observations is 80, what is the sum of the squares of these observations ?
(a) 10
(b) 1000
(c) 100
(d) 2000
68. Sum of square deviation from mean for any set of observation is -
(a) Negative
(b) Minimum
(c) Zero
(d) None of these

(Directions Q 69 to 72) Two or Three statements are followed by two conclusions I and II, you have to take the two given statements to be true, disregarding the commonly known facts and then decide which of the given conclusions logically follows from the two given statements?

69. **Statement:** I. Some boys are student.
II. All students are Engineers.
Conclusions: I. All Engineers are students.
II. Some boys are Engineers.
(a) Only I follows
(b) Only II follows
(c) Both I and II follows
(d) Neither I nor II follows
70. **Statement:** I. All Lotus are flowers.
II. No Lily is a Lotus
Conclusions: I. No Lily is a flower.
II. Some Lilies are flowers.
(a) Only I follows
(b) Only II follows
(c) Either I or II follows
(d) Neither I nor II follows
71. **Statement:** Some files are rats.
All animals are rats
Conclusions: I. All files are rats.
II. Some rats are animals.

- (a) Only conclusion I follows.
(b) Only conclusion II follows.
(c) Either I or II follows.
(d) Both conclusion I and II follows.
72. **Statements:**
(i) All Soaps are Liquid
(ii) All Shirts are Soaps
(iii) No Shirt is a Gold.
Conclusions:
(I) Some Liquid, if they are shirts are also soaps.
(II) All gold being soap is a possibility.
(a) Only conclusion I follows.
(b) Only conclusion II follows.
(c) Both conclusions are correct.
(d) Neither I nor II follows.
73. If the correlation coefficient $r = \pm 1$ for the random variables X and Y, then the lines of regressions of Y on X and Y on Y
(a) are perpendicular to each other
(b) coincide
(c) intersect with acute angle $\pi/4$.
(d) are parallel to each other.
74. If $b_{yx} = 1.24$, $b_{xy} = 0.36$, $\bar{x} = 5.5$, $\bar{y} = 8.8$, then regression equation of y on x is given by
(a) $y = 1.24x + 1.98$
(b) $y = -1.24x + 1.98$
(c) $x = 0.3y + 2.86$
(d) None of these
75. The two lines of regression are $2x - 7y + 6 = 0$ and $7x - 2y + 1 = 0$. What is the correlation coefficient between x and y?
(a) $-2/7$
(b) $2/7$
(c) $4/49$
(d) None of these
76. Spearman's correlation co-efficient from 10 pairs of observations was calculated at 0.8. Subsequently, it was discovered that the difference in ranks relating to one pair of items was wrongly taken as 7 instead of 9. Correct the co-efficient of rank correlation.
(a) 0.51
(b) 0.61
(c) 0.71
(d) 0.81
77. Laspeyre's index is based on
(a) Base Year Quantities
(b) Current Year Quantities
(c) Average of base and current year Quantity
(d) None of these.

78. If set $A = \{1, 2, 3\}$, then what is the power set of A ?

- (a) $\{ \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}, \{1, 2, 3\} \}$
- (b) $\{ \phi, \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\} \}$
- (c) $\{ \phi, \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}, \{1, 2, 3\} \}$
- (d) None

79. If $f(x) = \sqrt{x + \sqrt{x + \sqrt{x + \dots \infty}}}$, then what is $f'(x)$ equal to ?

- (a) $\frac{1}{1 - 2f(x)}$
- (b) $\frac{1}{2f(x) - 1}$
- (c) $\frac{1}{1 + 2f(x)}$
- (d) $\frac{1}{2 + f(x)}$

80. If $\begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \\ a_{31} & a_{32} \end{bmatrix} A = \begin{bmatrix} b_{11} & b_{12} & b_{13} \\ b_{21} & b_{22} & b_{23} \\ b_{31} & b_{32} & b_{33} \end{bmatrix}$ then order of matrix A = ?

- (a) 2×2
- (b) 2×3
- (c) 3×2
- (d) 3×3

81. Solve $x^3 - 7x + 6 = 0$

- (a) $x = -4, -2, -3$
- (b) $x = 1, 2, -3$
- (c) $x = 5, 6, -1$
- (d) $x = 7, 2, -5$

82. Two machines (I and II) produce two grades of plywood, Grade A and Grade B. In one hour of operation, machine I produces 2 units of Grade A and one unit of Grade B, while machine II, in one hour of operation produces 3 units of grade A and four units of grade B. The machines are required to meet a production schedule of atleast 14 units of grade A and 12 units of grade B. Express this using linear inequalities.

- (a) $2x + 3y \geq 14, x + 4y \geq 12, x \geq 0, y \geq 0$
- (b) $2x + 3y \leq 14, x + 4y \geq 12, x \geq 0, y > 0$
- (c) $2x + 3y \leq 14, x + 4y \leq 12, x \geq 0, y \geq 0$
- (d) $2x + 3y \geq 14, x + 4y \leq 12, x \geq 0, y \geq 0$

83. Insurance company is trying to sell you an investment policy that will pay you Rs. 30,000 per year forever. If the required return on this investment is 5.8% p.a. How much will you pay for this policy?
(a) 5,32,241.48
(b) 5,17,241.38
(c) 4,82,348.38
(d) 6,48,441.37
84. Let R is the set of real numbers, such that the function $f : R \rightarrow R$ and $g : R \rightarrow R$ are defined by $f(x) = x^2 + 3x + 1$ and $g(x) = 2x - 3$ find $f \circ g(-1)$:-
(a) 10
(b) 12
(c) -11
(d) None
85. In a certain code language 'in bape' means 'he has won', 'lekiba' means 'she has lost' and 'in se pe' means 'he always won'. Which word in that language means he?
(a) in
(b) pe
(c) se
(d) Data inadequate
86. In a certain code DESIGN is written as FCUGIL, how is REPORT written in that code?
(a) TCRMPR
(b) TCRMTR
(c) TCTMPR
(d) TCTNTR
87. Five boys are standing in a row facing East. Pavan is left of Tavan, Vipin and Chavan to the left of Nakul. Chavan is between Tavan and Vipin. Vipin is fourth from the left, then how far is Tavan to the right ?
(a) First
(b) Second
(c) Third
(d) Fourth
88. Find odd One out :
835, 734, 642, 751, 853, 981, 532
(a) 751
(b) 853
(c) 981
(d) 532
89. Five People A, B, C, D and E are seated about a round table. Every chair is spaced equidistant from adjacent chairs.
(A) C is seated next to A.
(B) A is seated two seats from D.
(C) B is not seated next to A.
Which of the following must be true ?
(i) D is seated next to B.
(ii) E is seated next to A.

Select the correct from the options given below:

- (a) Only (i)
 - (b) Only (ii)
 - (c) Both (i) and (ii)
 - (d) Neither (i) nor (ii)
90. A person received the salary for the 1st Year is Rs. 5,00,000 per year and he received an increment of Rs. 15,000 per year then the sum of the salary he taken in 10 years.
- (a) Rs. 56,75,000
 - (b) Rs. 72,75,000
 - (c) Rs. 63,75,000
 - (d) None
91. A sum compounded annually become $\frac{25}{16}$ times of itself in 2 years, the rate of interest per annum is-
- (a) 5%
 - (b) 12.5%
 - (c) 25%
 - (d) 50%
92. If one root of the equation is $\sqrt{3} + 2$, form the equation.
- (a) $x^2 - 2\sqrt{3}x - 1 = 0$
 - (b) $x^2 - 3x + 1 = 0$
 - (c) $x^2 - 5x + 5 = 0$
 - (d) $x^2 - 4x + 1 = 0$

Directions (Q. 93-94): Following questions are based on the information provided below:

- (i) 'P x Q' means 'P is brother of Q.'
 - (ii) 'P ÷ Q' means 'P is sister of Q.'
 - (iii) 'P + Q' means 'P is mother of Q.'
 - (iv) 'P - Q' means 'P is father of Q.'
93. Which of the following means 'M is nephew of R' ?
- (a) $M \times T + J \div R$
 - (b) $R \times K - M \times T$
 - (c) $R \times K - M$
 - (d) $R - K \div M$
94. Which of the following means 'D is maternal uncle of T' ?
- (a) $D \times J + T$
 - (b) $D \times J - T$
 - (c) $D \div J + T$
 - (d) $D \div J - T$

95. Seven friends T, U, V, W, X, Y and Z are sitting in a straight line facing north. W sits fifth to the right of T. W does not sit at any of extreme ends. Two people sit between Z and X. Y sits third to the left of U. Y sits exactly in the middle. Z is not an immediate neighbour of Y. What is Z's position with respect to W ?
- (a) Second to the left
 - (b) Third to the right
 - (c) Fourth to the left
 - (d) Third to the left
96. For the data given calculate Fisher's index
 $\Sigma P_1 Q_0 = 3365$, $\Sigma P_0 Q_0 = 3530$,
 $\Sigma P_1 Q_1 = 3400$, $\Sigma P_0 Q_1 = 3600$
- (a) 99
 - (b) 90
 - (c) 90.25
 - (d) 94.88
97. Regression coefficient are
- (a) dependent of change of origin and of scale.
 - (b) independent of both change of origin and of scale.
 - (c) dependent of change of origin but not of scale.
 - (d) independent of change of origin but not of scale
98. Chain index is equal to:
- (a) link relative of current year $\times \frac{\text{Chain index of the current year}}{100}$
 - (b) link relative of previous year $\times \frac{\text{Chain index of the current year}}{100}$
 - (c) link relative of current year $\times \frac{\text{Chain index of the previous year}}{100}$
 - (d) None of these
99. The consumer price index over a certain period increased from 120 to 215 and the wages of worker increased from Rs. 1,680 to Rs. 3000. What is the loss of the worker?
- (a) 5.58
 - (b) 6.58
 - (c) 7.58
 - (d) None of these
100. _____ is the entire upper part of the table which includes columns and sub-column and unit of measurement.
- (a) Stub
 - (b) Box-head
 - (c) Body
 - (d) Caption
