



1. If $A = \{1, 2, 3, 4, 5, 7, 8, 9\}$ and $\{2, 4, 6, 7, 9\}$ then how many proper subset of **AB** can be created :

a)16	b) 15
b)32	d) 31







2. Find the area under the curve $f(x) = x^2 + 5x + 2$ with the limits 0 to 1

a) 3.833	b)4.388
c)4.833	d)3.338







3. If pth term of an AP is q and its qth term is p, then what will be the value of (p+q)th term?

a)0	b)1
c) p+q-1	d) 2(p+q-1)





4. The maxima and minima of the function $y = 2x^3 + 36x + 10$ occurs respectively at

a)x=2 and x=3	b)x=1 and x=3
c)x=3 and x=2	d)x=3 and x=1







5. If Mean (X) is = 10 and mode (Z) is = 7, then find out the value of median (M)





6. Which one of the following is a source of primary data?

a)Government records	b)Research Articles
c)Journals	d)Questionnaire filled by enumerators





7. If the coefficient of variation and standard deviation are 30 and 12 respectively, then the arithmetic mean of the distribution is

a)40	b)36
c)25	d)19





is

8. _____ is based on all the observations and ______ based on the central fifty percent of the observations

a)Mean deviation, Range	b)Mean deviation, quartile deviation
y	d)Quartile deviation, standard deviation





9. The relationship between two variables x and y is given by 4x-10 y = 20. If the median value of the variable x is 10 then what is median value of variable y?

a) 1.0	b)2.0
c)3.0	d)4.0





P

100 Questions

10. From the following data extract the index number by laspeyre's method:

1Q=460, 1P0Q 0= 140, P1Q 0=350, P0Q1= 200 a) 250 b)230 c)238.24 d)276.04





11. Which of the following index measures the changes month to month in the cost of a representative "basket" of from goods & services of the type which are bought by a household? typical Consumer Price Index b)Laspeyre's Index c)Fisher's Index d)Paasche'sIndex







12.Fisher's Index is called an ideal index number because it satisfying

a)Factors reversal test b)Time reversal test c)Both factor and time reversal test d)Circular test







13.If Laspeyre's Index is 119 and Paasche'sIndex is 112, then Fisher's Index number will be:

a)113.99	b)115.45
c)115.89	d)151.98







14.In price index, when a new commodity is required to be added, which of the following index is used?

a)Shifted price index	b)Splicing price index
c)Deflating price index	d)Value price Index







15.Let A = {1, 2, 3} and consider the relation R = {(1, 1), (2,2), (3,3), (1, 2), (2, 3), (1, 3), Then R is:

a)symmetric and transitive b)reflexive but not transitive c)reflexive but not symmetric d)neither symmetric, nor transitive





16. There are 20 points in a plane area. How triangles can be formed by these points if 5 points are many collinear?

a)550	b)560
c)1130	d)1140







17.In a G.P. 5th term is 27 and 8th term is 729. Find its 11th term.

a)729	b)6561
c)2187	d)19683







18.If y= x2then dy/dx at x=1 is equal to

(a)3,592.11	(b) 3,492.11
(c) 3,392.11	(d) None





19. Suresh's sister is the wife of Ram. Ram is Rani's brother, Ram's father is MadhurSheetalis Ram's grandmother. Remais sheetal'sdaughter –

in -law. Rohit is Rani's brother's son. Who is Rohit to Suresh?

(a)Brother-in-law (b) Son

(c)Brother (d)Nephew





20. Which is the left part of the table providing the description of the rows?

a)Caption	b)Box head
c)Stub	d)Body







21.Which one of the following is not a method of measures of dispersion?

a)9%	b)8%
c)11	d)10%
%	





22.There are six children playing football namely A, B, C, D, E, and F, A, & E are brothers. F is sister of E. C is the only son of A's uncle. B & D are daughters of the brother of C's father. How D is related to A?

a)Uncle	b)Cousin
c)Niece	d)Sister







23. The suitable formula for computing the number of the class intervals is:

a)3.322 logN	b)0.322 logN
c)1+3.322 logN	d)1-3.322 logN







24. The equations of the two lines of regression are 4x+3y+7=0 and 3x+4y+8=0, Find the correlation coefficient between x and y?

a)-0.75	b)0.25
c)-0.92	d)1.25







25. If the regression equation are 2x+3y+1 = 0 and 5x + 6y + 1 = 0, then Mean of x and y respectively are

a)-1, -1	b)-1, 1
c)1, -1	d)2,3







26. If b yx= 0.5, b xy= 0.46 then the value of correlation coefficient r is:

a)0.23	b)0.25
c)0.39	d)0.48





27. The coefficient of rank correlation between the ranking of following6 students in two subjects Mathematics and Statistics is :

Μ	athematic	3	5		8	4	7	1
S	Statistics	6	4		9	8	1	0
	a)0.25			b)0	.35			
	c)0.38			d)0	.20			





28. A machine worth Rs. 4,90,740 is depreciated at 15% on its opening value each year. when its value would reduce to Rs. 2,00,000

a)5 years 5 months	b)5 years 6 months
c)5 years 7 months	d)5 years 8 months







29. The number of ways 4 boys and 3 girls can be seated in a row so that they are alternate is:

a)12	b)288
c)144	d)256







30. If $n_{P_r} = 3024$ and $n_{C_r} = 126$, then find n and r

a)9,4	b)10, 3
c)12, 4	d)11, 4





31.If Rs. 64 Amount to Rs. 83.20 in 2 years, what will Rs. 86 Amount to in 4 years at the same Rate percent per annum?

a)Rs. 137.60	b)Rs. 147.60
c)Rs. 145.34	d)Rs. 117.60







32. How many 3 digit odd numbers can be formed using the digits 5, 6, 7, 8, 9, if the digits can be repeated?

a)55	b)75
c)65	d)85





33. In a joint family, there are father, mother, 3 married sons and unmarried daughter. Out of the sons, two have 2 daughters each and one one has a son only. How many female members are there in the family?

a)3	b)6
c)9	d)5







34. When Rani saw Vinit, she recollected that "He is the brother of My grandfather'son." How is Rani related to Vinit?

a)Aunt	b)Daughter
c)Sister	d)Niece





35. Annanyais mother of Satyaand Shyamis the son of Bhima. Shiva is brother of Annanya. If Satyais sister of Shyam, how Bhimais related top Shiva?

a)Son	b)Cousin
c)Brother-in-law	d)Son-in-law





36. Sumanis daughter-in-law of Rakeshand sister-in-law of Rajesh. Ramesh is the son of Rakeshand only brother of rajesh. Find the relation of Sumanwith Ramesh.

a)Sister-in-law	b)Cousin
c)Aunt	d)Wife







37. Skewness of Normal Distribution is

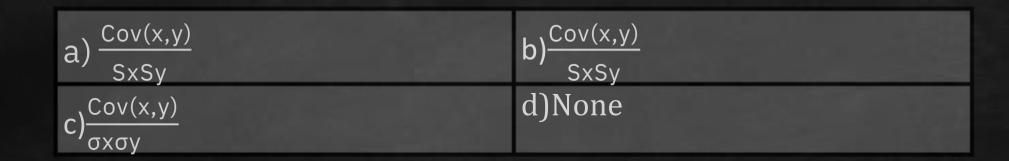
a)Negative	b)Positive
c)zero	d)Undefined







38. Pearson's correlation coefficient between x and y is









39. If a Poission distribution in such that P(X=2)=P(X=3) than the variance of the distribution is

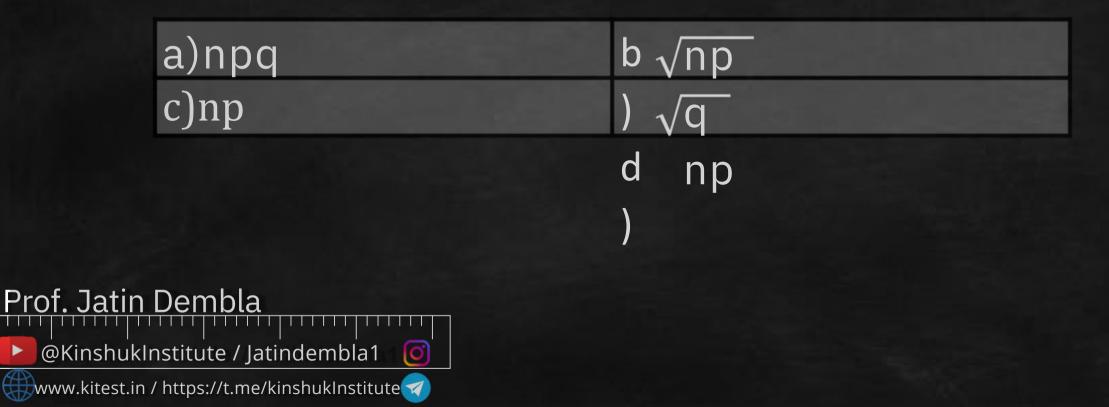
a)√3	b)3
c)6	d)9







40. The standard Deviation of Binomial distribution is





41. A farmer borrowed Rs. 3600 at the rate of 15% simple interest per Annum. At the end of 4years, he cleared this account by paying Rs. 4000 and a cow. The cost of the cow is:

a)Rs. 1000	b)Rs. 1200
c)Rs. 1550	d)Rs. 1760





42. How much amount is required to be invested ever year so as to accumulate Rs. 5,00,000 at the end of 12 years if interest is compounded annually at 10%? (Where A (12, 0.1) = 21.384284)

a)Rs. 23381.65	b)Rs. 24385.85
c)Rs. 26381.65	d)Rs. 28362.75







43. The effective annual rate of interest corresponding to a normal rate of 6% per annum payable half yearly is:

a)6.06%	b)6.07%
c)6.08%	d)6.09%





44. 10 years ago the earning per share (EPS) of ABC Ltd. was Rs. 5 share. Its EPS for this year is Rs. 22. Compute at what rate, EPS of the company grow annually?

a)	b)16.77%
15.97%	d)14.79%
c)18.64%	The first water and the state of the







45. If 'FORZEN' is decoded as 'OFAPSG'. Tick the right option that depicts "MOLTEN" written in this way?

a)OFPOMN	b)OFSMPN
c)OFUMPN	d)OFUNPN





46. Radha moves towards South-East a distance of 7 km. then she moves towards West and travels a distance of 14 km. From here she moves towards North-West a distance of 7 km and finally she moves a distance of 4km towards east. How far is she now from the starting point?

a)3 km	b)4 km
c)10 km	d)11 <i>km</i>





47. P, Q, R and S are playing a game of carom P, R, and S, Q playing a game of carom P, R and S, Q are partners. 'S' is to are right of 'R'. If 'R' is facing west, then 'Q' is facing which the direction?

a)South	b)North
c)East	d)West





48.Pointing to a man in photograph, Khushisays, "This man's son's sister is my mother-in-law." How is the Khushi'shusband related to the man in the photograph?

a) Grandson	b)Son
c)Son in law	d)Cousin





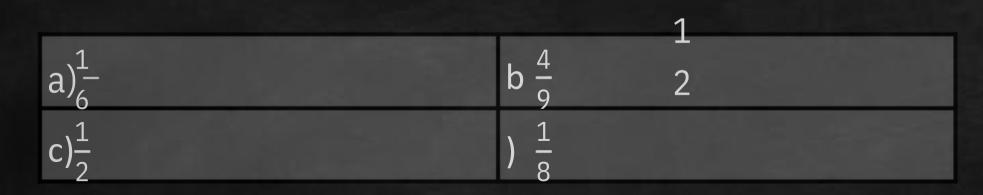
49. A machine is made of two parts A and B. The manufacturing Process of each part is such that probability of defective in part A is 0.08 and that B is 0.05. What is the **BSSERPHILE** will not have any defect?







50. If $P(A) = \frac{1}{3}$, $P(B) = \frac{3}{4}$ and $P(A \cup B) = \frac{1}{1}$ then $P(\frac{B}{A})$ is:



d

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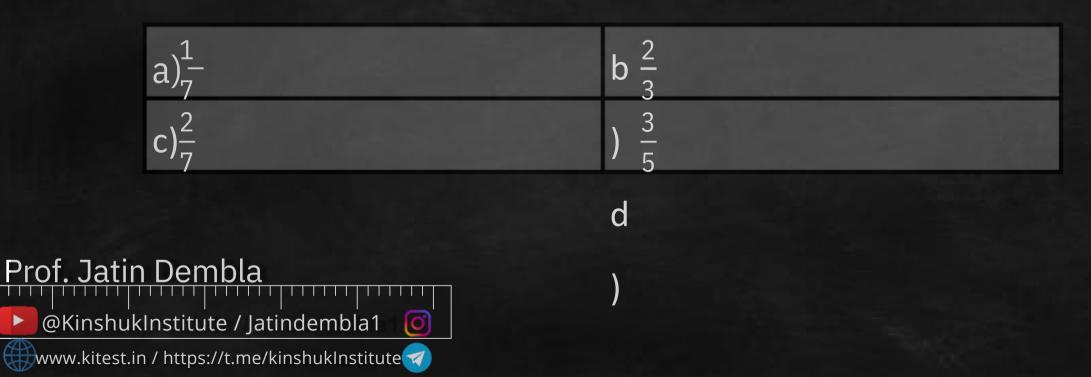
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51. The probability that a leap year has 53 Mondays is:





52. Rajuinvests Rs. 20,000 every year in a deposit scheme staring from today for next 12 years. Assuming that interest rate on this deposit is 7% per annum compounded annually. What will be the future value of this annuity? Given that (1+0.0712) = 2.25219159.

a)Rs.	b)Rs. 382,813
540,526 c)Rs.	d)Rs.
643,483	357,769





53. Mr. A invested Rs. 10,000 every year for next for 3 years at the interest rate of 8 percent per annum compounded annually. What is future value of the annuity?

a)	b)32464
32644	d)36442
c)34264	





- 54. Mr. Prakash invested money in two schemes 'A' and 'B' offering
- compound interest at the rate of 8% and 9% per annum respectively. If the total amount of interest accrued through these two schemes
- together in two years was Rs. 4818.30 and total amount invested was Rs. 27,000. What was the amount invested in scheme 'A'?

a)Rs. 12,000	b)Rs. 12,500
c)Rs. 13,000	d)Rs. 13,500





55.A sum of money invested of compound interest doubles itself in four years. In how many years it becomes 32 times of itself at the rate of compound interest.

a)12 years	b)16 years
c)20 years	d)24 years





56. One morning a boy starts walking in a particular direction for 5 km and then takes a left turn and walks another 5 km thereafter he again takes left turn and walks another 5 km and at last he takes right turn and walks 5 km. Now he sees his shadow in front of him. What direction he did start Initially?

a)South	b)North
c)West	d)East







57. It is 3' o clock in a watch. If the minute hand points towards the North-East then the hour hand will point towards the

a)South	b)South-west
c)North-West	d)South-East





58. Six persons A, B, C, D, R, and F are sitting in two rows with three

persons in each row. Both rows are in front of each other. E is not at end of the any row and D is second left to the F, C is neighbour of E and

diagonally opposite to D. If B is neighbour of F who is in front of C then who is sitting diagonally to F? a)C c)A d)D





59. Find the odd man out: 34, 105, 424, 2123, 12756 a)12756 b)2123 c)424





60. The speeds of a number of bikes follow a norma model with a mean of 83km/ hrand a standard deviation of 9.4 distribution km/hr. Find the probability that a bike picked at

travelling at more than 95 km/hr? random is a)0.158 b)0.38 7 c)0.49 d)0.278





61. Suppose A and B are two independent events with probabilities $P(A) \neq 0$ and $P(B) \neq 0$. Let A' and B' be their complements. Which one of the following statements is FALSE?

a) $P(A \cap B) = P(A) P(B)$	b)P(A/B) = P(A)
$c)P(A \cup B) = P(A) + P(B)$	$d)P(A \cap B') = P(A') P(B')$







62. The theorem of Compound Probability states that for any two events A and B.

a) P $(A \cap B) = P(A) \times P(B/A)$	$b)P(AUB) = P(A) \times P(B/A)$
c)P($A \cap B$)=P(A)× P(B)	$d)P(AUB) = P(A) + P(B) - P(A \cap B)$





63. The difference between compound interest and simple interest on an amount of Rs. 15,000 for 2 years is Rs. 96. What is the rate of interest per annum?

a)9%	b)8%
c)11%	d)10%





64. Rs. 5,000 is invested every month end in an account paying interest @ 12% per annum compounded monthly. What is the future value of this annuity just after making 11thpayment? (Given that (1.01)11=1.1156)

a)Rs.	b)Rs. 56,100
57,800 c)Rs.	d)Rs.
56,800	57,100

0

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65. If the roots of the equation $x^2 px + q = 0$ are in the ratio 2:3, then

a)
$$p^2 = 25 q$$

b) $p^2 = 6q$
c) $6 p^2 = 5q$
d) $6p^2 = 25q$





66. A sum of money doubles itself in 4 years at compound interest rate. In how many years this sum will certain becomes 8 times at same compound interest

a)12 years	b)14 years
rate? _{c)16 years}	d)18 years





67. Sinking fund factor is the reciprocal of :

a)Present value interest factor of a	b)Present value interest factor of an
single cash flow	annuity
c)Future value interest factor of an	d)Factor value interest factor of a
annuity	single cash flow







68. Find the missing number in the following series? 3, 5, 5, 19, 7, 41, 9, ?, 11, 109

a)71	b)61
c)69	d)79





69. P, Q, R, S and T are sitting in a line facing West. P and Q sitting together. R is sitting at south end and S is sitting at North are end. T is neighbour of Q and R. Who is sitting the middle?

a)P	b)Q
c)R	d)S





70. A man is facing west. He turns 45 degree in the clockwise direction and then another 180 degree in the same direction and then 270 degree in the anticlockwise direction Find which direction he is facing now?

a)South-East	b)West
c)South	d)South-West





71. In certain code language, if TOUR is written as 1234, CLEAR is written 5678 and SPARE is written as 90847, find the code for CARE?

a)1247	b)4847
c)5247	d)5847







72. Mean deviation is minimum when deviation are taken from:

a)Mean	b)Median
c)Mode	d)Range







73. If a number is selected at random from the first 50 numbers, what will be the probability that the selected number natural is a multiple of 3 and 4 ?

a) 5/50	b)2/25
c)3/50	d)4/25







74. If the first quartile is 56.50 and the third quartile is 77.50, then the coefficient of quartile deviation is

a) 638.09	b)15.67
c)63.80	d)156.71







75. If three coins are tossed simultaneously, what is the probability of getting two heads together?

a)	b)1/8	
1/4	d)3/8	
c)5/8		







76. What will be the value of k, if the roots of the equation $(k-4)^2 - 2kx + (k+5) = 0$ are equal?

a)1	b)20
8	d)21
c)19	







77. If 2x + 5 > 3x + 2 and 2x - 3 < 4x - 5 the 'x' can take which of the following value?

a)	b)-4
4	d)-
c)	2

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2



78. If the cost of 3 bags and 4 pens is Rs. 257 whereas the cost of 4 bags and 3 pens is Rs. 324, then the cost of one bag is:

a)8	b)24
c)3	d)75
2	







79. If $\log_{10} 2 = y$ and $\log_{10} 3 = x$, then the value of $\log_{10} 15$ is:

a) x-y+1	b)x+y+1
c)x-y-1	d)y-x+1







80. $\log 4 \cdot \log 5_6 \log 6$. $\log 7. \log 8. \log 9$ equal to:

a)3	b)2
c)1	d)0







81.The number of subsets of the set {0, 1, 2, 3} is









82. Find the next number in the given sequence? 11, 17, 39, 85, ?, 281, 447

a)	b)143
133	d)163
c)153	





83. $2(x-3)^6$ dx is

a) $\frac{(2x-3)}{6}$	b $\frac{(2x-3)^6}{2}$
c) $\frac{(2x-36)}{12}$) $\frac{(2x-3)^6}{3}$

d





84. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?

a) 246173	b)214673
c)216473	d)214763







85.Ogive for more than type and less than type of distribution intersect at

a)Mean	b)Median
c)Mode	d)Origin







86. The median of the observation 42, 72, 35, 92, 67, 85, 72, 81, 51, 56 is

a) 69.5	b)72
c)64	d)61.5





87. If the sum of square of the values equals to Number of observation are 30 and Standard deviation is 3390. 7, what is th mean value of the above

a)14	b)11
observjations?	d)5





88.The mean of 50 observation is 36. If two observations 30 and 42 are to be excluded, then the mean of the remaining observation will be:

a)3	b)38	
6	d)50	
c)48		





89. A sum of money is to be distribution among A, B, C, D in the proportion of the 5:2:4:3. If C gets Rs. 1000 more than D, what is B's share?

a) 2000	b)1500
c)2500	d)1000







90. By simplifying $(2ab^{3} 4)^{6}/(4a3b)^{2} \times (a^{2}b^{2})$, the answer will be

a)4 ² a ² b	b)422b
c)4a ³³ b ³	d)4a ²² B ³





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100 Questions

91. A group of 400 soldiers posted at border area had a provision for 31 days. After 28 days 280 soldiers from this group were called back. Find the number of days for which the remaining ration will be sufficient?

a)	b)6
3	d)10
c)	
8	
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92. The solution of the following system of linear equations 2x-5y+4=0 and 2x+y-8=0 will be

a)(2,	b)(1, -3)
-3) c)(3,	d)(-2,
2)	2)







93. If x5 + y5 = 0 then $\frac{dy}{dx}$ is

a) $\frac{y+x4}{x+y4}$	b $\frac{y-x4}{y4-x}$
$c)\frac{x-y4}{x4-y}$) $\frac{x+y4}{x4+y}$

d







94. If Arithmetic Mean and Geometric Mean between Two numbers are 5 and 4 respectively, then these numbers are

a)2 & 3	b)2 & 8
c)4 & 6	d)1 & 16





 $\frac{4xdx}{x x 2+1}$ is **95**.

a)
$$\frac{1}{2}$$
log $\left(\frac{17}{5}\right)$
b)2 log $\left(\frac{17}{5}\right)$
c) $\frac{1}{2}$ log $\left(\frac{5}{17}\right)$
d)2 log $\left(\frac{5}{17}\right)$







96. If the variance of a random variable 'x' is 17, then what is variance of y = 2x + 5?

a)34	b)39
c)68	d)78







97. If the variance of given data is 12, and their mean value is 40, what is coefficient variation (CV)?

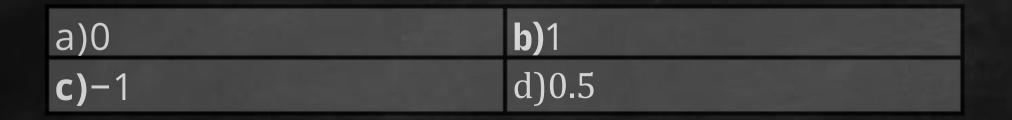
a)	b)6.66%
5.66%	d)8.65%
c)7.50%	







98. In a given set if all data are of same value then variance would be:









99. If Arithmetic mean between two numbers is 5 and Geometric mean is 4 then what is the value of Harmonic mean?

a)	b)3.4
3.2	d)3.6
c)3.5	





100.The average age of 15 students in a class is 9 years. Out of them, the average age of 5 students is 13 years and that of 8 students is 5 years. What is the average of remaining 2 students?

a)5 years	b)9 years
c)10 years	d)15 years

