



Time Allowed: 1 Hour

Full Marks: 100

Answer all questions. Each question carries 2 marks.

1.	If each group consists of one observation only, the value of correlation ratio is _____.		
	(a)	0	O
	(b)	1	O
	(c)	Between 0 and 1.	O
	(d)	Between -1 and 1.	O
2.	Rank correlation method was developed by _____.		
	(a)	Karl Pearson	O
	(b)	R.A. Fisher	O
	(c)	Spearman	O
	(d)	Croxten and cowden	O
3.	What is the regression coefficient b_{xy} from the following details : $X = 0.64y + 19.10$; $Y = x + 5.25$?		
	(a)	0.85	O
	(b)	0.64	O
	(c)	0.98	O
	(d)	1	O
4.	If coefficient of correlation between x and y is 0.6, standard deviation of x is 4, standard deviation of y=1.33, Mean of X is 15, and Mean of Y = 10, the regression line of x on y is.....		
	(a)	$x=0.13Y+5.6$	O
	(b)	$x=0.125Y + 10$	O
	(c)	$x=0.6Y+9$	O
	(d)	$x=0.3Y-8$	O
5.	When a die and a coin are rolled together, all possible outcomes are:		
	(a)	6	O
	(b)	2	O
	(c)	36	O



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	(d)	12	O
6.	A bag contains 4 white and 2 black balls of the same size and weight, and two balls are selected at random without replacement, the possible selections are:		
	(a)	6	O
	(b)	4	O
	(c)	36	O
	(d)	15	O
7.	Five cards are selected at random from a pack of 52 cards with replacement. The possible combinations are:		
	(a)	52	O
	(b)	$(52)^5$	O
	(c)	52×52	O
	(d)	$(5)52$	O
8.	The two events A and B are called not mutually exclusive events if:		
	(a)	$A \cap B = \Phi$	O
	(b)	$A \cap B \neq \Phi$	O
	(c)	$A \cup B = \Phi$	O
	(d)	$A \cap B = \text{zero}$	O
9.	Extreme value have no effect on _____.		
	(a)	Average	O
	(b)	Median	O
	(c)	Geometric mean	O
	(d)	Harmonic mean	O
10.	The number of partition values in case of quartiles is _____.		
	(a)	4	O
	(b)	3	O
	(c)	2	O
	(d)	1	O
11.	Which of the following is a unit less measure of dispersion?		
	(a)	Standard deviation	O



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	(b)	Mean deviation	O
	(c)	Coefficient of variation	O
	(d)	Range	O
12.	For a negatively skewed distribution, the correct inequality is _____.		
	(a)	Mode<median	O
	(b)	Mean<median	O
	(c)	Mean<mode	O
	(d)	None of the above	O
13.	Range of 8, 12, 5, 15 is _____.		
	(a)	2	O
	(b)	5	O
	(c)	10	O
	(d)	15	O
14.	If a frequency distribution is positively skewed, the mean of the distribution is _____.		
	(a)	Greater than the mode	O
	(b)	Less than the mode	O
	(c)	Equal to mode	O
	(d)	Less than the mean	O
15.	When the coefficient of skewness is zero, the frequency curve is _____.		
	(a)	U shaped	O
	(b)	J shaped	O
	(c)	Bell shaped	O
	(d)	None of the above	O
16.	Which of the following statements is always true?		
	(a)	The mean has an effect on extreme scores	O
	(b)	The median has an effect on extreme scores	O
	(c)	Extreme scores have an effect on the mean	O
	(d)	Extreme scores have an effect on the median	O



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17.	If the arithmetic mean of 20 values is 10, then sum of these 20 values is:		
	(a)	10	O
	(b)	20	O
	(c)	200	O
	(d)	30	O
18.	Ten families have an average of 2 boys. How many boys do they have together?		
	(a)	2	O
	(b)	10	O
	(c)	12	O
	(d)	20	O
19.	The model letter of the word STATISTICS is:		
	(a)	S	O
	(b)	T	O
	(c)	Both S and I	O
	(d)	Both S and T	O
20.	If $\sum x_i^2 = 10000$, $\sum x_i = 400$ and C.V. = 50% then value of n is :		
	(a)	5	O
	(b)	40	O
	(c)	20	O
	(d)	25	O
21.	Mean of x, y, z and y, z, r is equal then which of following is true?		
	(a)	$x = y = z$	O
	(b)	$y = z = r$	O
	(c)	$y = z$	O
	(d)	$x = r$	O
22.	The median of a set of 7 distinct observations is 10.5 If each of the last 3 observation of the set is increased by 3 then the median of the new set =		
	(a)	is decreased by 2	O
	(b)	is two times the original median	O
	(c)	remain the same as that of the original set	O
	(d)	is increased by 2	O



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23.	For moderately skewed distribution A.M. = 110, Mode = 104, then median is:	
(a)	112	O
(b)	108	O
(c)	104	O
(d)	None of them	O
24.	Which of the following does not indicate the skewness of a distribution?	
(a)	Histogram	O
(b)	Ogive	O
(c)	Frequency polygon	O
(d)	Pie diagrams	O
25.	In a grouped frequency distribution, the intervals should be _____.	
(a)	Mutually exclusive	O
(b)	Exhaustive	O
(c)	Both 1 and 2	O
(d)	Neither 1 and 2	O
26.	Cost of sugar in a month under the heads Raw-materials, Labour, direct production and others were 12, 20, 35 and 23 units respectively. What is the difference between the central angles for the largest and smallest components of the cost of sugar?	
(a)	72°	O
(b)	48°	O
(c)	56°	O
(d)	92°	O
27.	Most of the commonly used frequency curves are :	
(a)	Mixed	O
(b)	Inverted J-shaped	O
(c)	U-shaped	O
(d)	Bell-shaped	O
28.	Mode of a distribution can be obtained form :	
(a)	Histogram	O



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	(b)	Less than type Ogives	O
	(c)	More than type Ogives	O
	(d)	Frequency polygon	O
29.		Gulshan Kumar borrows ` 300 at 5% and ` 450 at 6% at the same time and on the condition that the whole loan will be repaid when the total interest amounts to ` 126. The loan will have to be repaid after how many years:	
	(a)	2	O
	(b)	3	O
	(c)	4	O
	(d)	5	O
30.		If $3x + 4y : 5x - 3y = 5 : 3$, then $x : y$:	
	(a)	16:27	O
	(b)	27:16:00	O
	(c)	08:09	O
	(d)	None of these	O
31.		The 6th and 20th terms of an AP are 8 and -20 respectively. Find the 30th term-	
	(a)	-34	O
	(b)	-40	O
	(c)	-32	O
	(d)	-30	O
32.		If X Varies inversely as square of Y and given that $Y = 2$ for $X = 1$, then the Value of X for $Y = 6$ will be:	
	(a)	3	O
	(b)	9	O
	(c)	$1/3$	O
	(d)	$1/9$	O
33.		The 3rd and 8th term of a GP are $1/3$ and 81, respectively. Find the 2nd term-	
	(a)	3	O
	(b)	1	O
	(c)	Jan-27	O
	(d)	01-Sep	O



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34.	₹ 2,530 is distributed between Ram and Hari such that Ram gets $\frac{11}{12}$ part that Hari gets. Then Hari gets:	
(a)	₹ 1,320	O
(b)	₹ 1,210	O
(c)	₹ 1,230	O
(d)	₹ 1,310	O
35.	The sum of the roots of the quadratic equation $x^2 - 3x = 0$ is :	
(a)	1	O
(b)	0	O
(c)	-3	O
(d)	3	O
36.	If $\log_2 [\log_3 (\log_2 x)] = 1$, then x equals :	
(a)	128	O
(b)	256	O
(c)	512	O
(d)	None	O
37.	A round table conference is to be held among 20 delegates of 20 countries. The no of ways they can be seated if two particular delegates are never sit together is _____.	
(a)	17.18!	O
(b)	18.19!	O
(c)	20!/2	O
(d)	19!.2	O
38.	If the equations $X^2 - 5X + 6 = 0$ and $X^2 + mX + 3 = 0$ have common roots, the value of m is equal to	
(a)	(1/4, 4/3)	O
(b)	(7/3, 1/4)	O
(c)	(7/4, -3/5)	O
(d)	(-7/2, -4)	O



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39.	An arrangement in which the order of the objects selected from a specific pool of objects is important called:		
	(a)	Combination	O
	(b)	Permutation	O
	(c)	Factorial	O
	(d)	Sample space	O
40.	Some amount of money is distributed among Rama, Mita and Shipra such that twice the money that Rama gets = thrice the amount of money that Mita gets = four times the amount of money that Shipra gets. Then the continued ratio of their money is:		
	(a)	02:03:04	O
	(b)	4: 3 :2	O
	(c)	6 :4 : 3	O
	(d)	3 : 2 : 1	O
41.	The number of different words that can be formed from the letters of the word “TRIANGLE” so that no vowels are together is :		
	(a)	7200	O
	(b)	36000	O
	(c)	14400	O
	(d)	1240	O
42.	If ${}^{189}C_{35} + {}^{189}C_x = {}^{190}C_x$ then x is equal to :		
	(a)	34	O
	(b)	35	O
	(c)	36	O
	(d)	37	O
43.	The decimal part of a logarithm is called :		
	(a)	Characteristic	O
	(b)	Mantissa	O
	(c)	Both	O
	(d)	None	O



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44.	A bag contains `187 in the form of 1 rupee, 50 paise and 10 paise coins in the ratio 3:4:5. Find the number of each type of coins :	
(a)	102, 136, 170	<input type="radio"/>
(b)	136, 102, 170	<input type="radio"/>
(c)	170, 102, 136	<input type="radio"/>
(d)	None	<input type="radio"/>
45.	The set of all the subsets of a given set A is called the Power Set of A.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>
46.	The geometric mean of 3 and $\frac{1}{3}$ is -1.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>
47.	The cardinal number of a null set is zero.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>
48.	One root of the quadratic equation $3x^2 + 10x + 3 = 0$ is reciprocal to the other.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>
49.	Harmonic mean of a set of observations is the reciprocal of the arithmetic mean of the reciprocal values of the observations.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>
50.	Variance is the positive square root of standard deviation.	
(a)	TRUE	<input type="radio"/>
(b)	FALSE	<input type="radio"/>