Sr No.	MSc Statistics
1	Choose the missing term out of the given options: ___aa__ba__bb__ab__aab
Alt1	aaabb
Alt2	babab
Alt3	bbaab
Alt4	bbbaa

2	Choose word from the given options which bears the same relationship to the third word, as the first two bears: Hour : Second :: Tertiary : ?
Alt1	Intermediary
Alt2	Primary
Alt3	Ordinary
Alt4	Secondary

3	Select the lettered pair that has the same relationship as the original pair of words: Stickler :Insist
Alt1	Laggard: Outlast
Alt2	Braggart: Boast
Alt3	Haggler: Concede
Alt4	Trickster: Risk

4	Select the lettered pair that has the same relationship as the original pair of words: Necromancy : Ghosts
Alt1	Romance: Stories
Alt2	Magie: Amulets
Alt3	Alchemy: Gold
Alt4	Sorcery: Spirits

5	Find out the number that has the same relationship as the numbers of the given pair: MAD: JXA: RUN: ?
Alt1	ORK
Alt2	OSQ
Alt3	PRJ
Alt4	UXQ

6	Spot the defective segment from the following:
Alt1	Keep the miscreants
Alt2	at your arm’s length
Alt3	for
Alt4	they will pull the wool over your eyes

7	The terrorists held the tourists ---------- for ransom.
Alt1	as hostages
Alt2	hostages
Alt3	hostage

Alt4	captives

8	If I ------- wealthy, I would have got many friends.
Alt1	had been
Alt2	were
Alt3	was
Alt4	am

9	Choose the option closest in meaning to the given word: NEOLOGISM
Alt1	inoculation
Alt2	coinage
Alt3	consistency
Alt4	mirth

10	Choose the antonymous option you consider the best: SUAVE
Alt1	crestfallen
Alt2	polite
Alt3	rough
Alt4	cherished

11	In a certain code, REFRIGERATOR is coded as ROTAREGIRFER. Which wordwould be coded as NOITINUMMA ?
Alt1	ANMOMIUTNI
Alt2	AMNTOMUIIN
Alt3	AMMUNITION
Alt4	NMMUNITIOA

12	Traffic : Road in the same way as
Alt1	Aeroplane : Aerodrome
Alt2	Blood : Veins
Alt3	Roots : Tree
Alt4	Car : Garage

13	The following information is given: One of M.Gopi, his wife, their son and Mr.Gopi's mother is an architect and another is a doctor. (i) If the doctor is younger than the architect, then the doctor and the architect are not blood relatives. (ii) If the doctor is a woman, then the doctor and the architect are blood relatives. (iii) If the architect is a man, then the doctor is a man. Whose occupation is known by this information?
Alt1	Mr. Gopi is the doctor
Alt2	Mr. Gopi's son is the architect
Alt3	Mrs. Gopi is the doctor
Alt4	Mr. Gopi's mother is the doctor

14	Gopal was ranked 5th from the top and 16th from the bottom in a test. How many students were there in his class
Alt1	19
Alt2	21
Alt3	22
Alt4	20

15	Median of 10o, 5o, -2o, -1o, -5o, 15o is
Alt1	-2o
Alt2	-1o
Alt3	2o
Alt4	3o

16	Which of the following is 'OXYMORON'?
Alt1	Found Missing
Alt2	TIT-TAT
Alt3	GOTO
Alt4	Misunderstood

17	There are 5 persons in a class. Each one is shaking hand with the other. Find the total number of hand shakes?
Alt1	5
Alt2	10
Alt3	20
Alt4	60

18	Of the 26 Capital letters, how many are symmetrical along with vertical and horizontal axes.
Alt1	4
Alt2	3
Alt3	6
Alt4	5

19	There are 30 boys and 60 girls in a village . There are 70 men and 40 women in that village. What is the percentage of boys in that village?
Alt1	0.1
Alt2	0.25
Alt3	0.2
Alt4	0.15

20	There are N students in a class and only 8 of them are girls. If 11 boys added to the class,how many students in the class are boys?
Alt1	N+3
Alt2	N-3
Alt3	N-19

Alt4	19

21	A statistical organization established by the Department of Economic Affairs, Ministry of Finance is:- A. Labour Bureau of Statistics B. National Sample Survey Organization C. Indian Labour Organization D. World Health Organization
Alt1	A
Alt2	B
Alt3	C
Alt4	D

22	If the c.d.f. of a r.v. X is $F(x)=0$, for $x<0$; $F(x)=1-(e^{-x}/2)$, for $x\geq 0$, then the m.g.f. of X is:- A. $\frac{(2-t)}{2t}, t<1$ B. $\frac{2-t}{(1-t)}, t<1$ C. $\frac{2-t^2}{(1-t)}, t<1$ D. $\frac{2-t}{2(1-t)}, t<1$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

23	If the joint pdf is $f(x,y)=e^{-(x+y)}$, $0<x, y<\infty$ then the value of $P(X<Y)$ = A. 1/4 B. 1/2 C. 1/3 D. 1/5
Alt1	A
Alt2	B
Alt3	C
Alt4	D

24	In case of a random effect model, the hypothesis which is to be tested with regard to treatments is:- A. $\sum \tau_i = 0$ B. $\tau_i = 0$ C. $\sigma_\tau^2 = 0$ D. $\sum \tau_i^2 = 0$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

25	The outcomes of an experiment were marked on the two dimensional space of X, Y plane taking the values 0<X<1 and 0 <Y<1. The chance that a randomly chosen outcome will fall in the region $X^2+Y^2>a^2$ is:- A. π/4 B. π/2 C. 1-π/4 D. 1-π/2
Alt1	A
Alt2	B
Alt3	C
Alt4	D

26	If arithmetic mean and coefficient of variation of x are 20 and 20 respectively, what is the variance of y = 10 - 2 x? A. 84 B. 64 C. 36 D. 16
Alt1	A
Alt2	B
Alt3	C
Alt4	D

27	The unknown coefficient of the equation $x^2 + bx + 3 = 0$ is determined by throwing an ordinary six faced die. The probability that the equation has real roots is:- A. 1/36 B. 4/36 C. 2/3 D. 1/2
Alt1	A
Alt2	B
Alt3	C
Alt4	D

28	In the analysis of data of a Randomized Block Design (RBD) with b blocks and v treatments, the error degrees of freedom are:- A. v b B. (b-1) (v-1) C. v (b-1) D. b (v-1)
Alt1	A
Alt2	B
Alt3	C
Alt4	D

29	A partial correlation:- A. Controls for influence on both of the variables being correlated B. Controls for influence on both of the variables being uncorrelated C. Controls for influence on the first of the variables being correlated D. Controls for influence on the second of the variables being correlated
Alt1	A
Alt2	B
Alt3	C
Alt4	D

30	The sum of the series $\frac{1}{2}+\frac{1}{3}.(\frac{1}{2})^3+\frac{1}{5}(\frac{1}{2})^5+\ldots\ldots$ is equal:- A. $\sqrt{3}$ B. $\log 3$ C. $\log\sqrt{3}$ D. 3
Alt1	A
Alt2	B
Alt3	C
Alt4	D

31	In a split plot design with Factor A at 'p' levels in main plots, Factor B at 'q' levels in sub-plots and 'r' replications, the degrees of freedom for sub-plot error is:- A. (q-1)(r-1) B. (p-1)(q-1)(r-1) C. q(r-1)(p-1) D. p(q-1)(r-1)
Alt1	A
Alt2	B
Alt3	C
Alt4	D

32	The analysis of variance technique test the significant difference of:- A. Two or more means when σ^2 is unknown B. Two or more variances when μ is known C. Two or more means when σ^2 is known D. Two or more variances when μ is unknown
Alt1	A
Alt2	B
Alt3	C
Alt4	D

33	Let A and B be two square matrices of the same order, then $(A+B)^3 = A^3 + 3A^2B + 3AB^2 + B^3$ only when_____. A. BA = I B. AB = I C. AB ≠ BA D. AB = BA
Alt1	A
Alt2	B
Alt3	C
Alt4	D

34	If $A = \begin{bmatrix} \cos^2\alpha & \cos\alpha\sin\alpha \\ \cos\alpha\sin\alpha & \sin^2\alpha \end{bmatrix}$ and $\begin{bmatrix} \cos^2\beta & \cos\beta\sin\beta \\ \cos\beta\sin\beta & \sin^2\beta \end{bmatrix}$ are two matrices such that the product AB is the null matrix, then α-β is equal to:- A. an odd multiple of $\pi/2$ B. a multiple of π C. 1 D. 0
Alt1	A
Alt2	B

Alt3	C
Alt4	D

35	If p is the ratio of the roots of the equation $ax^2 + bx + c = 0$, then $\frac{(p+1)^2}{p}$ is :- A. $a^2 b^2 c^2$ B. $\frac{b^2}{a^2 b^2}$ C. $\frac{b^2}{ac}$ D. $\frac{b}{ac}$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

36	A student is answering the objective multiple choice questions, each consist of 4 options and one among them is correct and the rest of them are incorrect. He answers the question either by guessing or by knowing the correct answer with chances 1/3 and 2/3 respectively. What is the chance that he guessed the answer given that the response is correct? A. 1/6 B. 1/10 C. 1/8 D. 1/9
Alt1	A
Alt2	B
Alt3	C
Alt4	D

37	Which of the following statement about the assumptions of the error term in the simple linear regression is not correct? A. Mean is zero B. Variance is 1 C. Constant Variance D. Normality
Alt1	A
Alt2	B
Alt3	C
Alt4	D

38	If α is a root of the equation $4x^2 + 2x - 1 = 0$, then the other root is:- A. $-(\alpha + 1/2)$ B. $4\alpha^3 + 3\alpha$ C. $2\alpha^2 + 2\alpha - 1$ D. $4\alpha^3 - 3\alpha$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

39	Let C be the midpoint of a straight line AB with a length of a units. Let D and E be the two points in AC and CB. What is the probability that the distance between D and E is less than λa, where $0<\lambda<1$? A. $1-\lambda/2$ B. $1-\lambda$ C. $\lambda^2/2$ D. $2\lambda^2$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

40	The cumulative distribution function of a random variable X is $$F(x) = \begin{cases} 0 & \\ \frac{1}{2} & 0 \leq x < 2 \\ \frac{5}{6} & 2 \leq x < 3 \\ 1 & x \geq 3 \end{cases}$$ Then F (2) is equal to:- A. 1/6 B. 1/3 C. 1/7 D. 1/4
Alt1	A
Alt2	B
Alt3	C
Alt4	D

41	The characteristic function of standard Cauchy distribution is:- A. e^t B. $e^{|t|}$ C. $e^{-|t|}$ D. e^{-t}

Alt1	A
Alt2	B
Alt3	C
Alt4	D

42	If $K(t_1,t_2) = \log_e M(t_1,t_2)$, where $M(t_1,t_2)$ is the joint m.g.f. of X and Y, then Mean and Variances of X are:- A. $\frac{\partial}{\partial t_1} M(0,0); \frac{\partial^2}{\partial t_1^2} M(0,0)$ B. $\frac{\partial}{\partial t_2} M(0,0); \frac{\partial^2}{\partial t_2^2} M(0,0)$ C. $\frac{\partial}{\partial t_2} K(0,0); \frac{\partial^2}{\partial t_2^2} K(0,0)$ D. $\frac{\partial}{\partial t_1} K(0,0); \frac{\partial^2}{\partial t_1^2} K(0,0)$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

43	In simple random sampling with replacement, variance of sample mean is equal to:- A. $\left(\frac{1}{N}-\frac{1}{n}\right)S^2$ B. $\left(\frac{1}{n}-\frac{1}{N+1}\right)S^2$ C. $\left(\frac{1}{n+1}-\frac{1}{N-1}\right)S^2$ D. $\left(\frac{1}{n}-\frac{1}{N}\right)S^2$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

44	The p.d.f. of a random variable is $f(x) = \begin{matrix} \frac{3}{4}x(2-x) & ;0 \le x \le 2 \\ 0 & otherwise \end{matrix}$ then the median of the distribution is A. 3/4 B. 4/5 C. 1 D. 2/3
Alt1	A
Alt2	B
Alt3	C
Alt4	D

45	A and B play a game in which their chances of winning are in the ratio 3:2 then A's chances of winning exactly two games out of five is equal to:- A. 625/ 3125 B. 600/ 3125 C. 720/3125 D. 700/ 3125
Alt1	A
Alt2	B
Alt3	C
Alt4	D

46	A random sample $x_1, x_2, \ldots x_n$ is drawn from a normal population $N(\mu, \sigma^2)$. To test the hypothesis $H_0: \mu = \mu_0$ against $H_1: \mu \neq \mu_0$, the likelihood ratio statistic is:- A. $\left\{\frac{\frac{1}{n}\sum_{i=1}^{n}(x_i-\bar{x})}{\sum_{i=1}^{n}(x_i-\bar{x})^2}\right\}^{\frac{n}{2}}$ B. $\left\{\frac{\frac{1}{n}\sum_{i=1}^{n}(x_i-\bar{x})^2}{\frac{1}{n-1}\sum_{i=1}^{n}(x_i-\mu_0)^2}\right\}^{\frac{n}{2}}$ C. $\left\{\frac{\sum_{i=1}^{n}(x_i-\bar{x})^2}{\sum_{i=1}^{n}(x_i-\mu_0)^2}\right\}^{\frac{n}{2}}$ D. $\left\{\frac{\sum_{i=1}^{n}(x_i-\mu_0)^2}{\sum_{i=1}^{n}(x_i-\bar{x})^2}\right\}^{\frac{n}{2}}$

Alt1	A
Alt2	B
Alt3	C
Alt4	D

47	Suppose $X \sim N(\mu, \sigma^2)$ then $U = \frac{1}{2}(\frac{X-\mu}{\sigma})^2$ follows:- A. Gamma distribution with parameter 1/2 B. Normal distribution with parameters 0 and 1 C. Normal distribution with parameters 0 and σ^2 D. Gamma distribution with parameter 1 and 1
Alt1	A
Alt2	B
Alt3	C
Alt4	D

48	If T_1 and T_2 be two unbiased estimators of a parameter θ, then the efficiency of T_1 with respect to T_2 is:- A. $V(T_1)/V(T_2)$ B. $V(T_2)/V(T_1)$ C. $V(T_1) + V(T_2)$ D. $V(T_1) - V(T_2)$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

49	As per Weak Law of Large Numbers, $P\{|\bar{x}_n - \mu| < \varepsilon\} \to (L)$, as n→∞; and $P\{|\bar{x}_n - \mu| \geq \varepsilon\} \to (M)$, as n→∞, where (L) and (M) are respectively:- A. 0,1 B. 1,1 C. 1,0 D. 0,0
Alt1	A
Alt2	B
Alt3	C
Alt4	D

50	X is a random variable taking values 1 and 2 with probabilities p and q, p+q=1. To test H: p = 0.2, a single observation is made on X (say x). A test rejects H if x =1. What is the size of the test? A. 0.8 B. 0.2 C. greater than 0.2 D. less than 0.2
Alt1	A
Alt2	B
Alt3	C
Alt4	D

51	If $A(t) = \int_{-t}^{t} e^{-\lvert x \rvert} dx$ then $lim_{t\to\infty} A(t)$ A. 1 B. 4 C. 2 D. 0
Alt1	A
Alt2	B
Alt3	C
Alt4	D

52	The mean of a random sample of 16 observations for N(μ,σ^2= 4) distribution is 25. The 95% confidence interval for μ is approximately:- A. (21, 29) B. (23, 27) C. (24.5, 25.5) D. (24, 26)
Alt1	A
Alt2	B
Alt3	C
Alt4	D

53	If $f(x) = \frac{1}{x}\left\{\int_{y}^{a} e^{sin^2 t} dt - \int_{x+y}^{a} e^{sin^2 t} dt\right\}$ for x ≠ 0 is continuous at x = 0 then f(0) is:- A. $e^{sin^2 y}$ B. $e^{cos^2 y}$ C. $sin\ 2y\ e^{sin^2 y}$ D. $-sin\ 2y\ e^{sin^2 y}$
Alt1	A

Alt2	B
Alt3	C
Alt4	D

54	Systematic sampling means:- A. selection of n units situated at equal distances B. selection of n contiguous units C. selection of n largest units D. selection of n middle units
Alt1	A
Alt2	B
Alt3	C
Alt4	D

55	ISS in Indian administrative services is the acronym for:- A. Indian Service Systems B. Indian Statistical Services C. Indian Social Systems D. Indian Statistical Societies
Alt1	A
Alt2	B
Alt3	C
Alt4	D

56	If X and Y are independent with common Exponential distribution with parameter $\theta = 1$, then the distribution of (X-Y) is:- A. A standard normal distribution B. A standard Cauchy distribution C. An exponential distribution D. A standard Laplace distribution
Alt1	A
Alt2	B
Alt3	C
Alt4	D

57	The PGF of a random variable X where P(X=0)=0.5, P(X=1)=0.3 and P(X=3)=0.2 is:- A. $0.2t^3$ B. $0.5+0.3t+0.2t^3$ C. $0.3t+0.2t^3$ D. $0.5+0.3t$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

58	If the mean, standard deviation and coefficient of skewness of a frequency distribution are 60, 45 and -0.4, respectively, then the mode of the frequency distribution is:- A. 78 B. 80 C. 68 D. 42
Alt1	A
Alt2	B
Alt3	C
Alt4	D

59	The variance of the first n natural numbers is:- A. $\frac{n^2-1}{12}$ B. $\frac{n-1}{2}$ C. $\frac{n^2+1}{12}$ D. $\frac{n+1}{2}$
Alt1	A
Alt2	B
Alt3	C
Alt4	D

60	Which one the following is true?
Alt1	The sum of the observation from the median is zero
Alt2	The sum of the observation from the mode zero
Alt3	The sum of the observation from the Harmonic Mean is zero
Alt4	The sum of the observation from the arithmetic mean is zero.

61	The mid point of a class in a frequency distribution is obtained by
Alt1	Adding upper and lower class limits
Alt2	Subtrating the lower class limit from the upper class limit
Alt3	Dividing the sum of lower and upper class limiits by 2
Alt4	Dividing by 2 the difference of upper and lower class limits

62	The empirical relationship among mean , median and mode is

Alt1	mean-mode=2(mean-median)
Alt2	mean-mode=median-mode
Alt3	mean-mode=4(mean-median)
Alt4	mean-mode=3(mean-median)

63	The mean of 50 items is 25 and their standard deviation is 2. Then the sum of squares of all the items is
Alt1	31450
Alt2	31455
Alt3	31405
Alt4	31250

64	A random variable X is such that Var(X) =2, then Var(2x+3) is
Alt1	5
Alt2	8
Alt3	13
Alt4	17

65	Two attributes A and B are said to be positively associated if
Alt1	(AB) > (A)(B)/N
Alt2	(AB) = (A)(B)/N
Alt3	(AB) < (A)(B)/N
Alt4	(AB) - (A)(B)/N

66	The regression equations are 5x=22+y and 64x=24+45y. Then the regression coefficient of y on x is
Alt1	1/5
Alt2	45/64
Alt3	5
Alt4	64/45

67	When one regression coefficient is Negative, the other should be
Alt1	Negative
Alt2	0
Alt3	Positive
Alt4	1

68	If A and B are mutually exclusive events, then
Alt1	P(AUB)=P(A) P(B)
Alt2	P(AUB) = P(A) + P(B)

Alt3	P(AUB) = 0
Alt4	P(AUB)=P(A) – P(B)

69	Three houses were available in a locality for allotment. Three persons applied for a house. The probability that all the three persons applied for the same house is
Alt1	1/3
Alt2	1/9
Alt3	1/27
Alt4	1

70	If X is a random variable and its p.d.f is f(x), E(log X) represents its
Alt1	Arithmetic mean
Alt2	Geometric Mean
Alt3	Harmonic Mean
Alt4	None of the above

71	The joint cumulative distribution function F(x, y) of the random variables X and Y takes values in the interval
Alt1	[-1 , 1]
Alt2	[-1, 0]
Alt3	(-∞ , 0]
Alt4	[0, 1]

72	The number of normal equations for fitting a polynomial of degree 3 is
Alt1	2
Alt2	3
Alt3	4
Alt4	5

73	The coefficient of variation of n observations is c. If each observation is multiplied by a constant k, then the coefficient of variation for the new set observations is
Alt1	kc
Alt2	c/k
Alt3	c
Alt4	c+k

74	If X and Y are two random variables, the covariance between the variables aX + b and cY+d, (a, b not equal to 0) in terms of COV(X,Y) is
Alt1	COV(X,Y)
Alt2	abcd COV(X,Y)
Alt3	ac COV(X,Y)+bd
Alt4	ac COV(X,Y)

75	The standard deviation of the sampling distribution of a statistic is known as
Alt1	sampling error
Alt2	non sampling error
Alt3	mean square error
Alt4	standard error

76	If a random variable X has the following probability distribution: x: -1 -2 1 2 Prob.: 1/3 1/6 1/6 1/3 then the expected value of X is:
Alt1	3/2
Alt2	1/6
Alt3	1/2
Alt4	0

77	The Cramer- Rao inequality gives the lower bound for the variance of
Alt1	a Least square estimator
Alt2	a moment estimator
Alt3	an unbiased estimator
Alt4	an MLE

78	For testing the independence of attributes in a (4,3) contingency table the degrees freedom is
Alt1	12
Alt2	8
Alt3	6
Alt4	1

79	Which one of the following probability distribution is impossible?
Alt1	A Poisson distribution with mean 16 and standard deviation is 4
Alt2	A Binomial dsitribution with mean 16 and standard deviation 4
Alt3	A Binomial distribution with mean 18 and variance 6
Alt4	A Gamma distribution with mean 5 and variance 5

80	The distribution having memory- less property is
Alt1	Rectangular distribution
Alt2	Normal distribution
Alt3	Cauchy distribution
Alt4	Exponential distribution

81	The mean of the following distribution is: x: 1 2 3 ... n f(x): 1 2 3 ... n
Alt1	[n(n+1)]/2
Alt2	1
Alt3	[(n+1)(2n+1)]/6

Alt4	[2n+1]/6

82	Which of the following is not true for normal distribution?
Alt1	Skewness = 0 and Kurtosis =3
Alt2	The frequency curve is not symmetric about the mean
Alt3	Mean = Median = Mode
Alt4	All moments of odd order about the mean is zero

83	If X and Y are independent gamma random variables with parameters μ and ν, then the distribution of X/X+Y is
Alt1	Normal with aprameters μ and ν
Alt2	F distribution with parameters μ, ν
Alt3	Beta distribution with parameters μ, ν
Alt4	Gamma with parameters μ, ν

84	The normal distribu on is a limi ng form of binomial distribu on if
Alt1	$n \to \infty$, $p \to 0$
Alt2	n is finite and $p \to 0$
Alt3	$n \to \infty$, $p = 1/2$
Alt4	$n \to \infty$ and neither p nor q is small

85	Which one of the following is not correct?
Alt1	The mean of Chi-Square distribution with n d.f is n
Alt2	The variance of Chi-Square distribution is 2n
Alt3	The range of Chi-Square variate is $-\infty$ to $+\infty$
Alt4	The skewness of Chi-Square distribution is 8/n

86	Let X be a random variable U(0, 1), then the variable Y = -2logX follows
Alt1	Chi-Squares distribu on
Alt2	Normal distribu on
Alt3	Binomial distribu on
Alt4	t - distribution

87	A simple random sample of 5 households was drawn from a village containing 250 households. The numbers of persons per household in the sample were 5, 6, 4, 7, and 3. The estimate of the total number of people in the village is
Alt1	625
Alt2	3125
Alt3	25
Alt4	1250

88	In systematic sampling the selection of sampling units is
Alt1	selection of any n successive units
Alt2	selection of n largest units
Alt3	selection of n units situated at equal distances

Alt4	selection of n middle units in a sequence

89	A simple random sample can be drawn with the help of
Alt1	Random number tables
Alt2	Lo ery Method
Alt3	Roule e wheel
Alt4	all the above

90	Under Optimal allocation in stratified sampling, the sample size in each stratum is directly porportional to
Alt1	the sample size
Alt2	total popula on size
Alt3	the population size in each stratum
Alt4	Population MSE of each stratum

91	A value of an estimator is called
Alt1	an estimate
Alt2	as a statistic
Alt3	a parameter
Alt4	a random sample

92	The bias of an estimator can be
Alt1	positive
Alt2	negative
Alt3	always zero
Alt4	either positive or negative

93	If an unbiased estimator and a sufficient statistic exist for a parametric function g(θ), then the minimum varaince unbiased estimator of g(θ) is a function of
Alt1	the unbiased estimator
Alt2	the unbiased estimator and the sufficient statistic
Alt3	the sufficient statistic
Alt4	the efficient estimate

94	The Rao-Blackwell theorem enables us to obtain minimum variance unbiased estimator through
Alt1	an unbiased estimator
Alt2	a Bayes' estimator
Alt3	a maximum likelihood estimator
Alt4	a sufficient Statistic

95	To test the difference between two normal population means (with known variances) based on two independent random samples from them, the test used is
Alt1	t-test
Alt2	Z-test
Alt3	Chi-Square test
Alt4	F-test

96	The test based on the ratio of the likelihood function under null hypothesis and under the entire parametric space is called
Alt1	Neyman Pearson test
Alt2	SPRT
Alt3	Likelihood ratio test
Alt4	Run test

97	A curve showing the probability of accepting a lot of quality p is known as
Alt1	OC Curve
Alt2	ASN Curve
Alt3	Gompetz Curve
Alt4	Power curve

98	To remove biasedness in the experimental studies of designs of experiments, we use
Alt1	Completely Randomizied Design
Alt2	Randomized Block Design
Alt3	Latin Square Design
Alt4	Factorial Design

99	A time series is unable to adjust the influences like
Alt1	Customs and policy changes
Alt2	Seasonal changes
Alt3	Long term influences
Alt4	Trend

100	The Fisher's ideal index number satisfies
Alt1	Time reversal test
Alt2	Factor reversal test
Alt3	both time and factor reversal tests.
Alt4	circular test