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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA
(An Autonomous Institute)
Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow
B.TECH
FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)
(Objective Type)

Subject Code: ACSBS0201

Subject: Statistical Methods

General Instructions:

All questions are compulsory.

Question No- 1 to 15 are objective type question carrying 2 marks each.

Question No- 16 to 35 are also objective type/Glossary based question carrying 2 marks each.

Max. Mks. : 70

Time : 70 Minutes

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
1	The size of the population can be		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Finite and Infinite both	finite	Infinite	Sampled population	Finite and Infinite both
2	In sampling without replacement , an element can be chosen		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Only once	Less than once	More than once	Only once	Difficult to tell
3	In simple linear regression, the number of unknown constants are		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Two	One	Two	Three	Four
4	The correlation coefficient is used to determine		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	The strength of the relationship between the x and y variables	A specific value of the y-variable given a specific value of the x- variable	A specific value of the x-variable given a specific value of the y- variable	The strength of the relationship between the x and y variables	None of these
5	Rank the score of 5 in the following set of scores 9,3,5,10,8,5,9,7,3,4		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	4.5	4.5	3	4	6
6	Estimation is of two types		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Point estimation and interval estimation	One sided and two sided	Type I and type II	Point estimation and interval estimation	Biased and unbiased
7	A formula or rule used for estimating the parameter is called		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Estimator	Estimation	Estimate	Estimator	Interval estimate
8	Interval estimate is associated with		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Range of values	Probability	Non-probability	Range of values	Number of parameters
9	The null hypothesis is		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	$H_0: \mu = 12$	$H_0: \mu < 12$	$H_0: \mu = 12$	$H_0: \mu > 12$	$H_0: \mu \ne 12$
10	A statement made about a population for testing purpose is called		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Hypothesis	Statistic	Level of Significance	Test-Statistic	Hypothesis
11	If the null hypothesis is false then which of the following is accepted		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Alternative Hypothesis	Null Hypothesis	Positive Hypothesis	Negative Hypothesis	Alternative Hypothesis
12	A time series is a set of data recorded		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	All of the above	Periodically	Weekly	successive points of time	All of the above
13	The seasonal variation means the variations occurring with in		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	within a year	A number of years	within a year	within a month	within a week
14	The first step in time-series analysis is to		Single Choice Questions	Single Choice Questions	2		Single Choice	Smart	Plot the data on a graph	Perform preliminary regression calculations	Calculate a moving average	Plot the data on a graph	Identify relevant correlated variables
15	Any calculation on the sampling data is called		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Static	Parameter	Error	Static	Random sampling
16	Standard error of mean is calculated by ___		Glossary I	Glossary I	2		Single Choice	Brilliant	SD/square root of n	Population	SD/square root of n	size of the population	simple random sampling
17	The set of all individuals who belong to the group being studied by a survey is called		Glossary I	Glossary I	2		Single Choice	Brilliant	Population	Population	SD/square root of n	size of the population	simple random sampling
18	We can calculate the accuracy of the results by using		Glossary I	Glossary I	2		Single Choice	Brilliant	simple random sampling	Population	SD/square root of n	size of the population	simple random sampling
19	The total number of objects (individuals or members) in a population is known as		Glossary I	Glossary I	2		Single Choice	Brilliant	size of the population	Population	SD/square root of n	size of the population	simple random sampling

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
20	If and n = 10, the rank of the given value is		Glossary II	Glossary II	2		Single Choice	Smart	0.721	Origin and but not of scale	0.393	Geometric mean	0.721
21	Correlation coefficient is the ___between the regression coefficients.		Glossary II	Glossary II	2		Single Choice	Smart	Geometric mean	Origin and but not of scale	0.393	Geometric mean	0.721
22	Regression coefficients are independent of the_____		Glossary II	Glossary II	2		Single Choice	Smart	Origin and but not of scale	Origin and but not of scale	0.393	Geometric mean	0.721
23	If the difference between the ranks of two variables are (-1, -4, 2, 1, -2, 2, 2), the spearman rank correlation coefficient is___		Glossary II	Glossary II	2		Single Choice	Smart	0.393	Origin and but not of scale	0.393	Geometric mean	0.721
24	Estimation is possible only in case of a_____		Glossary III	Glossary III	2		Single Choice	Smart	Random sample	Biased	Random sample	Point estimate	Error of estimation
25	A single value used to estimate a population values is called____		Glossary III	Glossary III	2		Single Choice	Smart	Point estimate	Biased	Random sample	Point estimate	Error of estimation
26	If the mean of the estimator is not equal to the population parameter, the estimator is said to be____		Glossary III	Glossary III	2		Single Choice	Smart	Biased	Biased	Random sample	Point estimate	Error of estimation
27	The distance between an estimate and the estimated parameter is called___		Glossary III	Glossary III	2		Single Choice	Smart	Error of estimation	Biased	Random sample	Point estimate	Error of estimation
28	Type 1 error occurs when __		Glossary IV	Glossary IV	2		Single Choice	Brilliant	We reject null hypothesis if it is True	Do not reject a false null hypothesis	We reject null hypothesis if it is True	Mann-Whitney U-test	Simple hypothesis
29	Type 2 error occurs when ___		Glossary IV	Glossary IV	2		Single Choice	Smart	Do not reject a false null hypothesis	Do not reject a false null hypothesis	We reject null hypothesis if it is True	Mann-Whitney U-test	Simple hypothesis
30	Neyman Pearson Lemma is used to test ___		Glossary IV	Glossary IV	2		Single Choice	Smart	Simple hypothesis	Do not reject a false null hypothesis	We reject null hypothesis if it is True	Mann-Whitney U-test	Simple hypothesis
31	The non parametric test is equivalent of an unpaired sample t-test __		Glossary IV	Glossary IV	2		Single Choice	Smart	Mann-Whitney U-test	Do not reject a false null hypothesis	We reject null hypothesis if it is True	Mann-Whitney U-test	Simple hypothesis
32	The sales of a commodity may decrease over a period of time because of better products coming to the market. This is an example of __		Glossary V	Glossary V	2		Single Choice	Brilliant	declining trend	P	q	declining trend	ARIMA
33	Autoregressive Integrated Moving-average stands for __		Glossary V	Glossary V	2		Single Choice	Brilliant	ARIMA	P	q	declining trend	ARIMA
34	____ is the order of Autoregressive AR process		Glossary V	Glossary V	2		Single Choice	Brilliant	P	P	q	declining trend	ARIMA
35	_____ is the order of Moving average MA process		Glossary V	Glossary V	2		Single Choice	Brilliant	q	P	q	declining trend	ARIMA