Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies (IEMS) Samundari

Question No: 1 (Marks: 1) - Please choose one
Mean deviation is always:

- ► Less than S.D
- ► Greater than S.D
- ► Greater or equal to S.D
- ► **Less or equal to S.D** Click here for detail

انسان کے لئے بری صحبت سے بڑھ کر بری کوئی چیز نہیں

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies (IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 2 (Marks: 1) - Please choose one
The value of χ^2 can never be :

- Zero
- Less than 1
- Greater than 1
- **Negative (Page 307) rep**

Question No: 3 (Marks: 1) - Please choose one
The mean of the F-distribution is:

- $\frac{v_1}{v_1 - 2} \quad for v_1 \rangle 2$
- $\frac{v_2}{v_2 - 2} \quad for v_2 \rangle 2$ **(Page 312) rep**
- $\frac{v_1}{v_1 - 2} \quad for v_1 \geq 2$
- $\frac{v_2}{v_2 - 2} \quad for v_1 \leq 2$
-

Question No: 4 (Marks: 1) - Please choose one
If X and Y are random variables, then $E(X-Y)$ is equal to:

- $E(X)+E(Y)$
- $E(X)-E(Y)$ **(Page 202) rep**
- $X-E(Y)$
- $E(X)-Y$
-

خاموشی غصے کا بہترین علاج ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies (IEMS) Samundari

Question No: 5 (Marks: 1) - Please choose one
Evaluate: (9-4)!

- ► 362880
- ► **120**
- ► 24
- ► 6

Question No: 6 (Marks: 1) - Please choose one
Which formula represents the probability of the complement of event A:

- ► $1 + P(A)$
- ► **$1 - P(A)$ (Page 156)**
- ► $P(A)$
- ► $P(A) - 1$

Question No: 7 (Marks: 1) - Please choose one
Ideally the width of confidence interval should be:

- ► **0 (Page 270)**
- ► 1
- ► 99
- ► 100

Question No: 8 (Marks: 1) - Please choose one

If the sampling distribution of $\bar{X}$ is normal, the interval $\mu_{\bar{x}} \pm 3\sigma_{\bar{x}}$ includes:

- ► 99% of the sample means
- ► **99.73% of the sample means (Page 228)**
- ► 98% of the sample means
- ► 95% of the sample means

Question No: 9 (Marks: 1) - Please choose one
The probability distribution of a statistic is called the:

- ► Population distribution
- ► Frequency distribution
- ► **Sampling distribution** click here for detail
- ► Sample distribution

جھوٹ رزق کو کھا جاتا ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies (IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 10 (Marks: 1) - Please choose one

An estimator T is said to be unbiased estimator of θ if

- **E (T) = θ (Page 258) rep**
- E (T) =T
- E (T) =0
- E (T) =1

Question No: 11 (Marks: 1) - Please choose one

If the following is a probability distribution, then what is the value of 'a':

X	1	2	3
P(X)	0.1	a	0.1

- 0.6
- **0.8**
- 0.2
- 0.4

Question No: 12 (Marks: 1) - Please choose one

A discrete probability function f(x) is always:

- Non-negative
- Negative
- **One (Page 168)**
- Zero

Question No: 13 (Marks: 1) - Please choose one

An expected value of a random variable is equal to:

- Variance
- **Mean (Page 191)**
- Standard deviation
- Covariance

افضل انسان وہ ہے جو اپنی اصلاح کی کوشش کرتا ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 14 (Marks: 1) - Please choose one

The $f(x|1) =$ _____:

- $f(1,1)$
- $f(x,1)$
- $\frac{f(x,1)}{h(1)}$ **(Page 198)**
- $\frac{f(x,1)}{h(x)}$
-

Question No: 15 (Marks: 1) - Please choose one

The area under a normal curve between 0 and -1.75 is

- .0401
- .5500
- **.4599 (Page 230)**
- .9599

Question No: 16 (Marks: 1) - Please choose one

The continuity correction factor is used when:

- The sample size is at least 5
- Both *nP* and *n (1-P)* are at least 30
- **A continuous distribution is used to approximate a discrete distribution** Click here for detail
- The standard normal distribution is applied

Question No: 17 (Marks: 1) - Please choose one

Which of the following is impossible in sampling:

- Destructive tests
- **Heterogeneous**
- To make voters list
- None of these

اطمینان قلب چاہتے ہو تو حسد سے دور رہو

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 18 (Marks: 1) - Please choose one
Which of the following is a systematic arrangement of data into rows and columns?

- ► Classification
- ► **Tabulation rep**
- ► Bar chart
- ► Component bar chart

Question No: 19 (Marks: 1) - Please choose one
Which one of the following statements is true regarding a sample?

- ► **It is a part of population (Page 13)**
- ► It must contain at least five observations
- ► It refers to descriptive statistics
- ► It produces True value

Question No: 20 (Marks: 1) - Please choose one
The data for an ogive is found in which distribution?

- ► A relative frequency distribution
- ► A frequency distribution
- ► A joint frequency distribution
- ► **A cumulative frequency distribution (Page 43)**

FINAL TERM EXAMINATION
Fall 2009
STA301- Statistics and Probability

Question No: 1 (Marks: 1) - Please choose one
10! =……..

- ► 362880
- ► **3628800**
- ► 362280
- ► 362800

اس سے پہلے کہ تمہیں شہوت فتنے میں ڈالے نکاح کر لو

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 2 (Marks: 1) - Please choose one
When E is an impossible event, then P(E) is:

► 2
► **0 (Page 146) rep**
► 0.5
► 1

Question No: 3 (Marks: 1) - Please choose one
The value of χ^2 can never be :

► Zero
► Less than 1
► Greater than 1
► **Negative (Page 307) rep**

Question No: 4 (Marks: 1) - Please choose one
The curve of the F- distribution depends upon:

► **Degrees of freedom (Page 312)**
► Sample size
► Mean
► Variance

Question No: 5 (Marks: 1) - Please choose one
If X and Y are random variables, then $E(X-Y)$ is equal to:

► $E(X)+E(Y)$
► $E(X)-E(Y)$ **(Page 202) rep**
► $X-E(Y)$
► $E(X)-Y$

Question No: 6 (Marks: 1) - Please choose one
In testing hypothesis, we always begin it with assuming that:

► **Null hypothesis is true (Page 277) rep**
► Alternative hypothesis is true
► Sample size is large
► Population is normal

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 7 (Marks: 1) - Please choose one

$$\frac{\ell^{-0.135}\ 0.135^{1}}{1!}$$

For the Poisson distribution P(x) = the mean value is :

- ►2
- ► 5
- ► 10
- ► **0.135 (Page 222) rep**

Question No: 8 (Marks: 1) - Please choose one

When two coins are tossed simultaneously, P (one head) is:

- ► $\frac{1}{4}$
- ► $\frac{1}{2}$
- ► $\frac{3}{4}$
- ► 1

Question No: 9 (Marks: 1) - Please choose one

From point estimation, we always get:

- ► **Single value (Page 257) rep**
- ► Two values
- ► Range of values
- ► Zero

Question No: 10 (Marks: 1) - Please choose one

$$S^2 = \frac{\sum(x-\bar{x})^2}{n}$$

The sample variance is:

- ► Unbiased estimator of σ^2
- ► **Biased estimator of σ^2 (Page 260) rep**
- ► Unbiased estimator of μ
- ► None of these

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 11 (Marks: 1) - Please choose one
Var(4X + 5) =_____

- ► 16 Var (X)
- ► 16 Var (X) + 5
- ► **4 Var (X) + 5 rep**
- ► 12 Var (X)

Question No: 12 (Marks: 1) - Please choose one
When f (x, y) is bivariate probability density function of continuous r.v.'s X and Y, then

$$\int_{-\infty}^{\infty}\int_{-\infty}^{\infty} f(x,y)\,dx\,dy$$

is equal to:

- ► **1 rep**
- ► 0
- ► -1
- ► ∞

Question No: 13 (Marks: 1) - Please choose one
The area under a normal curve between 0 and -1.75 is

- ► .0401
- ► .5500
- ► **.4599 (Page 230) rep**
- ► .9599

Question No: 14 (Marks: 1) - Please choose one
When a fair die is rolled, the sample space consists of:
- ► 2 outcomes
- ► 6 outcomes
- ► **36 outcomes (Page 145)**
- ►16 outcomes

Question No: 15 (Marks: 1) - Please choose one
When testing for independence in a contingency table with 3 rows and 4 columns, there are _____ degrees of freedom.
- ► 5
- ► **6 (Page 341)**
- ► 7
- ► 12

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 16 (Marks: 1) - Please choose one
The F- test statistic in one-way ANOVA is:

- ► SSW / SSE
- ► MSW / MSE
- ► SSE / SSW
- ► **MSE / MSW (Not sure)**

Question No: 17 (Marks: 1) - Please choose one
The continuity correction factor is used when:

- ► The sample size is at least 5
- ► Both *nP* and *n (1-P)* are at least 30
- ► **A continuous distribution is used to approximate a discrete distribution rep**
- ► The standard normal distribution is applied

Question No: 18 (Marks: 1) - Please choose one
A uniform distribution is defined by:

- ► **Its largest and smallest value** click here for detail
- ► Smallest value
- ► Largest value
- ► Mid value

Question No: 19 (Marks: 1) - Please choose one
Which graph is made by plotting the mid point and frequencies?

- ► **Frequency polygon (Page 34)**
- ► Ogive
- ► Histogram
- ► Frequency curve

Question No: 20 (Marks: 1) - Please choose one
In a set of 20 values all the values are 10, what is the value of median?

- ► 2
- ► 5
- ► **10**
- ► 20

ہر چیز کی ایک پہچان ہوتی ہے اور عقلمند کی پہچان غور و فکر کرنا ہے اور غور و فکر کی پہچان خاموشی ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 1 (Marks: 1) - Please choose one
For a particular data the value of Pearson's coefficient of skewness is greater then zero. What will be the shape of distribution?

- ► **Negatively skewed**
- ► J-shaped
- ► Symmetrical
- ► **Positively skewed (Page 110)**

Question No: 2 (Marks: 1) - Please choose one
In measures of relative dispersion unit of measurement is:

- ► **Changed**
- ► **Vanish Rep**
- ► Does not changed
- ► Dependent

Question No: 3 (Marks: 1) - Please choose one
The F-distribution always ranges from:

- ► 0 to 1
- ► 0 to -∞
- ► -∞ to +∞
- ► **0 to +∞ (Page 312) rep**

Question No: 4 (Marks: 1) - Please choose one
In chi-square test of independence the degrees of freedom are:

- ► **n - p**
- ► n - p-1
- ► n - p- 2
- ► n – 2

اپنی مرضی اور اللہ کی مرضی میں فرق کا نام غم ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 5 (Marks: 1) - Please choose one
The Chi- Square distribution is continuous distribution ranging from:

- $-\infty \leq \chi^2 \leq \infty$
- $-\infty \leq \chi^2 \leq 1$
- $-\infty \leq \chi^2 \leq 0$
- **$0 \leq \chi^2 \leq \infty$ (Page 307) rep**

Question No: 6 (Marks: 1) - Please choose one
If X and Y are random variables, then $E(X-Y)$ is equal to:

- $E(X)+E(Y)$
- $E(X)-E(Y)$ **(Page 202) rep**
- $X-E(Y)$
- $E(X)-Y$

Question No: 7 (Marks: 1) - Please choose one
If ŷ is the predicted value for a given x-value and b is the y-intercept then the equation of a regression line for an independent variable x and a dependent variable y is:

- **ŷ = mx + b, where m = slope (Page 121) rep**
- x = ŷ + mb, where m = slope
- ŷ = x/m + b, where m = slope
- ŷ = x + mb, where m = slope

Question No: 8 (Marks: 1) - Please choose one
The location of the critical region depends upon:

- **Null hypothesis**
- **Alternative hypothesis (Page 281) rep**
- Value of alpha
- Value of test-statistic

وہ لوگ مبارک ہیں جو الفاظ سے نصیحت نہیں کرتے بلکہ عمل سے کرتے ہیں

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 9 (Marks: 1) - Please choose one
The variance of the t-distribution is give by the formula:

$$\sigma^2 = \sqrt{\frac{\nu}{\nu - 2}}$$

▶

$$\sigma^2 = \frac{\nu^2}{\nu - 2}$$

▶

$$\sigma^2 = \frac{\nu}{\nu - 1}$$

▶

$$\sigma^2 = \frac{\nu}{\nu - 2}$$ **(Page 293)**

▶

Question No: 10 (Marks: 1) - Please choose one
Which one is the correct formula for finding desired sample size?

$$n = \left(\frac{Z_{\alpha/2}.\sigma}{e} \right)^2$$ **(Page 276)**

▶

$$n = \left(\frac{Z_{\alpha/2}.\sqrt{\sigma}}{e} \right)^2$$

▶

$$n = \left(\frac{Z_{\alpha/2}.\bar{X}}{e} \right)^2$$

▶

$$n = \frac{Z_{\alpha/2}.\sigma}{e}$$

▶

خدا کے سوا کسی سے امید مت رکھو

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 11 (Marks: 1) - Please choose one
A discrete probability function f(x) is always:

- ► Non-negative
- ► Negative
- ► **One (Page 168) rep**
- ► Zero

Question No: 12 (Marks: 1) - Please choose one
E(4X + 5) =_____

- ► 12 E (X)
- ► **4 E (X) + 5**
- ► 16 E (X) + 5
- ► 16 E (X)

Question No: 13 (Marks: 1) - Please choose one
How P(X + Y < 1) can be find:

- ► f(0, 0) + f(0, 1) + f(1, 2)
- ► f(2, 0) + f(0, 1) + f(1, 0)
- ► f(0, 0) + f(1, 1) + f(1, 0)
- ► f(0, 0) + f(0, 1) + f(1, 0)

Question No: 14 (Marks: 1) - Please choose one
$f(x|1) =$
The _____:

- ► $f(1,1)$
- ► $f(x,1)$
- ► $\frac{f(x,1)}{h(1)}$ **(Page 198) rep**
- ► $\frac{f(x,1)}{h(x)}$
- ►

ہر کسی کی روٹی نہ کھا بلکہ ہر شخص کو اپنی روٹی کھلا

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 15 (Marks: 1) - Please choose one
The area under a normal curve between 0 and -1.75 is

- .0401
- .5500
- **.4599 (Page 230) rep**
- .9599

Question No: 16 (Marks: 1) - Please choose one
In normal distribution M.D. =

- 0.5σ
- 0.75σ
- 0.7979σ Click here for detail **rep**
- 0.6445σ

Question No: 17 (Marks: 1) - Please choose one
In an ANOVA test there are 5 observations in each of three treatments. The degrees of freedom in the numerator and denominator respectively are.....

- 2, 4
- 3, 15
- 3, 12
- **2, 12**

Question No: 18 (Marks: 1) - Please choose one
A set that contains all possible outcomes of a system is known as

- Finite Set
- Infinite Set
- **Universal Set (Page 134)**
- **No of these**

Question No: 19 (Marks: 1) - Please choose one
Stem and leaf is more informative when data is :

- Equal to 100
- Greater Than 100
- **Less than 100** click here for detail rep
- In all situations

فرقہ بندی ہی ہماری قوم کا زوال کا باعث ہے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari

Question No: 20 (Marks: 1) - Please choose one

A population that can be defined as the aggregate of all the conceivable ways in which a specified event can happen is known as:

- ► Infinite population
- ► Finite population
- ► Concrete population
- ► **Hypothetical population (Page 12)**

دنیا حقیر نظر آتی ہے، جب غم یا خوشی کی انتہاء ہو جائے

Muhammad Moaaz Siddiq – MCS(4th)
Moaaz.pk@gmail.com
Campus:- Institute of E-Learning & Moderen Studies
(IEMS) Samundari