



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

SOLUTION OF WORKSHEET-27

| | <u>SUBJECT - STATISTICS</u> | | | | <u>S</u> |
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| | | | <u>Term : 21</u> | <u>nd</u> | |
| _ | ic – Sampling Marks: 15 | | | Class: XII Date:21 .11. 2020 | |
| Q1. | . Select the correct alternative of the following questions. | | | | |
| | (i) | The standard | error of sample mean | in SRSWR is | |
| | | (a) $\frac{\sigma}{\sqrt{n}}$ | (b) $\frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$ | (c) 0 | (d) none of these |
| | (ii) | The standard | error of sample mean | in SRSWOR is | |
| | | (a) $\frac{\sigma}{\sqrt{n}}$ | (b) $\frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$ | (c) 0 | (d) none of these |
| | (iii) | The standard | error of sample prop | ortion in SRSW | R is |
| | | (a) $\frac{\sqrt{p(1-p)}}{\sqrt{n}}$ | (b) $\frac{\sqrt{p(1-p)}}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$ | (c) 0 | (d) none of these |
| | (iv) | The standard | error of sample prop | ortion in SRSW | R is |
| | | (a) $\frac{\sqrt{p(1-p)}}{\sqrt{n}}$ | (b) $\frac{\sqrt{p(1-p)}}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$ | (c) 0 | (d) none of these |
| | (v) | In purpose sa | mpling all the populat | ion units have | probability of selection |
| | | (a) same | (b)some | (c)1 | (d) none of these |
| | (vi) | | the sample units are ent (b)dependent (c)p | partially depend | dent(d) none of these |
| | (vii) | In SRSWOR a | II the sample units are | | |

(a) independent (b)dependent (c)partially dependent(d) none of these

| (viii) | In SRSWR Covariance between two sample units is | | | | | | |
|--------|--|--|----------------------------|---------|--------------------------|--|--|
| | (a) -1 | (b)0 | (c)1 | (d) noi | ne of these | | |
| (ix) | In SRSWOR Co | In SRSWOR Covariance between two sample units is | | | | | |
| | (a) -1 | (b)0 | (c)1 | (d) no | ne of these | | |
| (x) | In SRSWR the | In SRSWR the the population units in sample proportion follows | | | | | |
| | (a) binomial | (b)rectangular | (c)normal | (d) noi | ne of these | | |
| (xi) | In SRSWOR th | e the population unit | s in sample pro | portion | follows | | |
| | (a) binomial | (b)rectangular | (c)normal | (d) noi | ne of these | | |
| (xii) | (ii) The total number of possible samples of size 2, drawn from a population in SRSWR is | | | | n a population of size 5 | | |
| | (a) 5 | (b)16 | (c)25 | | (d) none of these | | |
| (xiii) | | ong selection of statis | | | (d) none of these | | |
| (xiv) | | ong response is ias(b) nonsampling bi | as(c)both | | (d) none of these | | |
| (xv) | Stratified sam (a) true | pling means haphazar (b)false | d sampling (c)sometimes | true | (d) none of these | | |
| | | | | | | | |

Prepared by Sanjay Bhattacharya



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WORKSHEET- 27

SUBJECT - STATISTICS

Term: 2nd

| Topic - Sampling | Class: XII |
|------------------|-------------------|
| Full Marks: 15 | Date:21 .11. 2020 |

- Q1. Select the correct alternative of the following questions.
 - The standard error of sample mean in SRSWR is (i)

(a)
$$\frac{\sigma}{\sqrt{n}}$$

(a)
$$\frac{\sigma}{\sqrt{n}}$$
 (b) $\frac{\sigma}{\sqrt{n}}$ $\sqrt{\frac{N-n}{N-1}}$

- (d) none of these
- The standard error of sample mean in SRSWOR is (ii)

(a)
$$\frac{\sigma}{\sqrt{n}}$$

(a)
$$\frac{\sigma}{\sqrt{n}}$$
 (b) $\frac{\sigma}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$

- (d) none of these
- (iii) The standard error of sample proportion in SRSWR is

(a)
$$\frac{\sqrt{p(1-p)}}{\sqrt{n}}$$

(a)
$$\frac{\sqrt{p(1-p)}}{\sqrt{n}}$$
 (b) $\frac{\sqrt{p(1-p)}}{\sqrt{n}}$ $\sqrt{\frac{N-n}{N-1}}$ (c) 0

- (d) none of these
- (iv) The standard error of sample proportion in SRSWR is

(a)
$$\frac{\sqrt{p(1-p)}}{\sqrt{n}}$$

(a)
$$\frac{\sqrt{p(1-p)}}{\sqrt{n}}$$
 (b) $\frac{\sqrt{p(1-p)}}{\sqrt{n}} \sqrt{\frac{N-n}{N-1}}$ (c) 0

- (d) none of these
- (v) In purpose sampling all the population units have probability of selection
 - (a) same
- (b)some
- (c)1
- (d) none of these

- In SRSWR all the sample units are (vi)
 - (a) independent (b)dependent (c)partially dependent(d) none of these

| (vii) | In SRSWOR all the sample units are | | | | | | |
|--------|--|---|-----------------------------|-----------------------|------|--|--|
| | (a) independe | ent (b)dependent (c) | partially depend | dent(d) none of these | | | |
| (viii) | In SRSWR Covariance between two sample units is | | | | | | |
| | (a) -1 | (b)0 | (c)1 | (d) none of these | | | |
| (ix) | In SRSWOR Covariance between two sample units is | | | | | | |
| | (a) -1 | (b)0 | (c)1 | (d) none of these | | | |
| (x) | In SRSWR the the population units in sample proportion follows | | | | | | |
| | (a) binomial | (b)rectangular | (c)normal | (d) none of these | | | |
| (xi) | In SRSWOR the the population units in sample proportion follows | | | | | | |
| | (a) binomial | (b)rectangular | (c)normal | (d) none of these | | | |
| (xii) | The total number of possible samples of size 2, drawn from a population of size 5 in SRSWR is | | | | | | |
| | (a) 5 | (b)16 | (c)25 | (d) none of th | nese | | |
| (xiii) | Bias due to wrong selection of statistic is (a) sampling bias(b) nonsampling bias(c)both (d) none of these | | | | | | |
| (xiv) | | rong response is pias(b) nonsampling l | bias(c)both | (d) none of th | nese | | |
| (xv) | Stratified sam | npling means haphaz (b)false | ard sampling (c)sometime | s true (d) none of th | nese | | |

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