


ICS Part 2 Statistics Chapter 12 Online Test

| Sr | Questions | Answers Choice |
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| 1 | The following statistic are unbiased estimators: | A. The Sample mean B. $S^2 = \frac{\sum(X - \bar{X})^2}{n-1}$ C. The sample proportion D. All the above |
| 2 | A range of values within which the population parameter is expected: | A. Confidence interval B. Confidence coefficient C. Confidence limits D. Level of significance |
| 3 | 100(1- α)% confidence interval for population proportion of success, π is | A. $P(L < \mu < U) = 1 - \alpha$ B. $P(L < \sigma < U) = 1 - \alpha$ C. $P(L < \pi < U) = 1 - \alpha$ D. $P(L < P < U) = 1 - \alpha$ |
| 4 | If the observations are paired and the number of pairs is n, then the number of degree of freedom is equal to | A. n B. n - 1 C. 2n D. 2n - 1 |
| 5 | Estimate is the observed value of an: | A. Unbiased estimator B. Estimation C. Estimator D. Interval estimation |
| 6 | A range of values used to estimate an unknown population parameter is | A. a point estimator B. An interval estimator C. an unbiased estimator D. A biased estimator |
| 7 | If (1- α) is increased, the width of a confidence interval is: | A. Decreased B. Increased C. Constant D. Same |
| 8 | Statistical inference has two branches namely: | A. Level of confidence and degrees of freedom B. Biased estimator and unbiased estimator C. Point estimate and interval estimate D. Estimation of parameter and testing of hypothesis |
| 9 | Estimation is of two types: | A. One sides and two sides B. Type I and type II C. Point estimation and interval estimation D. Biased and unbiased |
| 10 | Small sample has less than | A. 50 values B. 45 values C. 30 values D. 35 values |
| 11 | The precision can be increased by ----- the sample size | A. increasing B. decreasing C. changing D. ignoring |
| 12 | The probability associated with confidence interval is called: | A. Level of confidence B. Confidence coefficient C. Both A and B D. Confidence limits |
| 13 | Confidence intervals which are often used in practice are | A. 90% B. 95% C. 98% D. all of these |
| 14 | The endpoints of a confidence interval are called: | A. confidence coefficient B. Confidence limits C. Error of estimation D. Error of confidence |

D. Parameters

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- 15 The process of making estimates about the population parameter from a sample is called:
- A. Statistical independence
 - B. Statistical inference
 - C. Statistical hypothesis
 - D. Statistical decision
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- 16 If $1-\alpha = 0.90$, the value of $Z_{\alpha/2}$ is:
- A. 1.645
 - B. 1.96
 - C. 2.326
 - D. 2.575
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- 17 If population proportion (P) is unknown, the standard error of the sample proportion (p) can be estimated by the formula
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- 18 By increasing the sample size, the precision of confidence interval is:
- A. Decreased
 - B. Increased
 - C. Constant
 - D. Unchanged
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- 19 
- A. biased
 - B. unbiased
 - C. positively biased
 - D. none of these
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- 20 A single value used to estimate a population value is called:
- A. Interval estimate
 - B. Point estimate
 - C. Confidence interval
 - D. Level of confidence
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