

Type: MCQ

Q1. Let X_1, X_2, X_3, \dots be an iid sample from a population normally distributed with mean μ (1)

and variance σ^2 . The statistic $(\bar{X} - \mu) / \sigma$ follows the

1. Students t distribution with n degrees of freedom
2. **The Z distribution
3. The F distribution
4. Students t distribution with n-1 degrees of freedom

Q2. Let $X_1, X_2, X_3, \dots, X_n$ be an iid sample from a population normally distributed with mean (1)

μ and variance σ^2 . The statistics $(\bar{X} - \mu) / (s / \sqrt{n})$ where \bar{X} is the sample mean and s the sample standard deviation

1. **Students t distribution with n-1 degrees of freedom
2. The Z distribution
3. The F distribution
4. Students t distribution with n-1 degrees of freedom

Q3. For iid samples from a normally distributed population, The z test is used to (1)

1. Test hypothesis about unknown population variance
2. Compare two population means
3. **Test hypothesis about an unknown population mean when population variance is known
4. Test hypothesis about two population variances

Q4. For iid samples from a normally distributed population, The Ftest is used to (1)

1. Test hypothesis about unknown population variance
2. Compare two population means
3. Test hypothesis about an unknown population mean when population variance is known
4. **Test hypothesis about two population variances

Q5. For iid samples from a normally distributed population, The Chi square is used to (1)

1. **Test hypothesis about unknown population variance
2. Compare two population means
3. Test hypothesis about an unknown population mean when population variance is known
4. Test hypothesis about two population variances