d) given that,

two-tail test, Zp=-1.63

and significance level, α=0.01

we have,

**Decision rule: (P-value) approach**

We reject H0 at α% level of significance level if,

P-value<α

here , P-value > α i.e. 0.1031>0.01

Therefore, we do not reject H0 at 1% level of significance.

**Ans: A)Do not Reject Ho, since the p-value is greater than or equal to the significance level,**

a) given that,

one-tail (lower) test, Zp=-1.86

and significance level, α=0.05

we have,

**Decision rule:**

We reject H0 at α% level of significance level if,

P-value<α

here , P-value < α i.e. 0.0314<0.05

Therefore, we reject H0 at 5% level of significance.

**Ans: C)Reject Ho, since the p-value is less than the significance level,** α