DA Exam

Set-D

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**Q-1.** $\mu = 50, \sigma = 10$

$n = 500, \bar{x} = 51.07$

(a) Hypothesis → $H_0$ $\mu_0 = \mu$ Null hypothesis

$\mu_0 \neq \mu$ Alternate Hypothesis

I have chosen this hypothesis to check for proposed population mean with sample mean

(b) $\alpha = 0.05$

Calculating z value = $\frac{\bar{x} - \mu}{\sigma/\sqrt{n}} = 2.392$

Rejection region $|z| > 1.96$ (from z table)

(c) we calculate z value as to test the hypothesis using $\bar{x}$ as sample statistics

(d) Since z value (2.392) lies in critical and rejection region, we reject the null hypothesis