Q.3)

**Working Expression:**

t =

Working Procedure:

Go to Analysis → compare means → one sample t-test → put in test variables → options, 95% →continue →test value = 30 → OK

SPSS OUTPUT:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **One-Sample Test** | | | | | | |
|  | Test Value = 30 | | | | | |
| t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| Time spent using internet | 1.484 | 23 | .151 | 3.667 | -1.44 | 8.78 |

**Setting of Hypothesis**

H0: The time spent by customers is equal to 30 minutes

H1: The time spent by customers is more than 30 minutes (One tailed test)

Here, p-value (two tailed) (2p) =0.151

P=0. 0755 (one tailed)

α=0.05

**Decision:**

Since, p=0. 0755 > =0.05, we accept H0 and H1 is rejected

**Conclusion:**

Hence, we conclude that time spent by customers is equal to 30 minutes.

**Q.4)**

**Working Expression:**

t =

**Working Procedure:**

Go to Analysis → compare means → one sample t-test → put in test variables → options, 95% →continue →test value=100 → OK

SPSS OUTPUT:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **One-Sample Test** | | | | | | |
|  | Test Value = 100 | | | | | |
| T | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| Download speed of ISP | -2.149 | 97 | .034 | -3.276 | -6.30 | -.25 |

**Setting of Hypothesis**

H0: The data supports the assumption of population mean is 100 mbps

H1: The data doesn't support the assumption of population mean is 100 mbps

(Two tailed test)

Here, p-value (2p) = 0.034

α = 0.05

**Decision:**

Since, p = 0. 034 > = 0.05, we accept H0 and H1 is rejected

**Conclusion:**

Hence, we conclude that the data supports the assumption of population mean is 100 mbps.

Q.5)

**Working Expression:**

t =

**Working Procedure:**

Go to Analysis → compare means → paired sample t-test → put in two test variables → options, 95% → continue → test value = 100 → OK

SPSS OUTPUT:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Paired Samples Test** | | | | | | | | | |
|  | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | |
| Lower | Upper |
| Pair 1 | Before training - After training | -1.200 | 2.781 | .879 | -3.189 | .789 | -1.365 | 9 | .206 |

**Setting of Hypothesis**

H0: The training was not effective.

H1: The training was effective.

(One tailed test)

Here 2p Value=0.206

P=0.103

Level of significance: α = 0.05

**Decision:**

Since, tcal = 0.103 < ttab = 1.365, we accept H0 and H1 is rejected.

**Conclusion:**

Hence, we conclude that the training was effective.