

**DATA SCIENCE BATCH-2023**

**Assignment 1**

**Problem Statement 1:**

A bank conducted a survey for marketing its new mutual fund scheme. People

willingly participated in the event and their response were recorded.

A detailed informative excel file including relevant information

regarding the survey was shared with data scientist.

The bank wanted to know whether there is significant change in response to the bank marketing campaign by married or divorced person.

1)State Ho and Ha

2)Conduct a hypothesis test in excel and find out whether there is significant change in the two distribution.

3)Take a random sample and test whether you derived the correct hypothesis on equal sample.

4)Try to include the descriptive stats as well.



**Problem Statement 2:**

Consider the given data

|  |
| --- |
| xi 10 11 12 13 14 15 16 17 18 19 20 21 |
| yi 14.08 15.57 16.94 17.68 18.49 19.55 20.68 21.72 22.80 23.84 24.79 25.67 |

By using excel solve the stated problem.

1)Find the regression line of y on x. Plot the data, the regression line, residuals and graphs

2)State the summary of the statistics.

3) Find the 90% confidence interval for the slope of the regression line y on x.

4) Is the slope significantly larger than 1.000 at the 5% level of significance?

5) Find the 95% confidence interval for the mean response of y at x value 12 .

6) Is the mean response for the y value at x= 12 significantly more than 16.5 at the 1% level

of significance?