



SAIDS

Assignment on Module 6

1. A survey was conducted to relate the time required to deliver a proper presentation on a topic, to the performance of the student with the scores he/she receives. The following Table shows the matched data:

Hours	Score
0.5	57
0.75	64
1	59
1.25	68
1.5	74
1.75	76
2	79
2.25	83
2.5	85
2.75	86
3	88
3.25	89
3.5	90
3.75	94
4	96

Find the regression equation and coefficient of determination that will predict a student's score if we know how many hours the student studied.

2. The following data is to be used to construct a regression model:

X	5	7	4	15	12	9
Y	8	9	12	26	16	13

Find Intercept, Slope, SST, SSR, SSE

3. In the context of Multiple linear regression explain what is Over fitting & multicollinearity?
4. Explain the Least Square method of simple linear regression and derive the formula for simple linear regression
5. Compare Simple and Multiple linear regression
6. Explain the Errors Term in Simple Linear Regression and coefficient of determination?
7. Find out what is the relation between the salary of a group of employees in an organization and the number of years of experience and the age of the employees.

26315	18	5
39493	20	7
37209	22	8
24380	23	6
25751	23	7
44629	25	5
37616	2	8
33305	28	6
36848	29	5
42551	32	7
25700	37	9
37303	41	6
24659	46	7
32617	49	8
35771	53	6