Unit 7 Correlation and regression analysis

1. The data on sales and promotion expenditure on a product are given below

Sales (Rs lakhs)	173	196	441	232	121	151	224	216	134	135
Promotion expenditure Rs(000)	41	54	11	16	41	34	23	35	10	40

- a. Find the relationship between sales and promotion expenditure and interpret it.
- b. Draw scatter diagram of sales and promotion expenditure
- c. Estimate coefficient of determination and interpret it
- d. Estimate the promotion expanses to generate the sales of 230 lakhs rupees
- 2. The following table represents the data size and efficiency of computer

Data size	10	12	13	12	16	15
Efficiency	40	38	43	45	37	43

- a. Find the relationship between data size and efficiency and interpret it.
- b. Draw scatter diagram of data size and efficiency
- c. Estimate coefficient of determination and interpret it
- d. Estimate the efficiency when the data size is 13