

- (b) An IQ test was administered to 5 candidates persons before and after they were trained. The results are given below: (At 4 d.f and 5% level of significance table value of t is 2.776) (9)

Candidate	1	2	3	4	5
Before training	110	120	123	132	125
After training	120	118	125	136	121

Test whether there is any change in IQ after the training programme.

SECTION:2

QUE.3

- (a) What is mean by Non -Parametric tests? Give advantages and limitations of it. (8)

- (b) Find Rank Correlation Coefficient for the following data: (9)

X	60	72	42	40	45	50	60	51	66
Y	35	30	52	54	48	50	30	35	25

O.R

- (a) Which are the main uses of Chi-Square test? Explain any one in detail. (8)

- (b) The result in M.com examination of 100 students is given below. Can it be said that the performance in the examination depends upon sex? (9)

(At 2 d.f. table value of Chi-Square is 5.99)

Sex	First class	Second class	Pass class	Total
Male	10	15	25	50
Female	25	10	15	50

QUE.4

- (a) Explain meaning, scope and assumptions of Interpolation and Extrapolation. (9)

- (b) Estimate the number of students securing marks less than 35 using the following data: (9)

Marks	10—20	20—30	30—40	40—50
Number of students	15	30	40	60

O.R

- (a) Find missing value using interpolation. (9)

X	2	4	6	8	10
Y	8	15	24	?	68

- (b) If $\sqrt{3}=1.73$, $\sqrt{6}=2.45$, $\sqrt{7}=2.65$ is given than find $\sqrt{10}$ using Lagrange Method. (9)