HERAMB COACHING CLASSES

Yogeshwar Towers, Katemanivali, Kalyan (East)

XII/Mathematics/01/11/17   **Marks:25**   **Duration:1Hour**

PART TWO

Q.1.Attempt any four   **(10 marks)**

a) Compute CDR of a city with total number of death 812 in a year out of total annual population 80,000.

b) The coefficient of correlation between two variables x and y is 0.48. The covariance is 36 and the variance of x is 16 .find the standard deviation of y.

c) For a bivariate data we have ȳ =28 and $\overline{x}$ =53, $b_{yx} = -1.5$ and $b_{xy} = -0.2$ $find$ y for x= 50.

d) Two series of x and y with 50 observations their s.d. are 4.5 and 3.5 and the sum of product of deviations from their respective mean is 420 find the coeff. Of correlation.

e) Find the mean values for x and y also coeff. Of correlation for $4y = 9x = 15$ and $25x = 6y + 7$

Q.2. Attempt any two   **(15 marks)**

a) In a complete life table $l_{25} = 50,000$ and $L_{25} = 49,865$. find the value of q_{25}.

b) Ranking of 8 trainees at the beginning (x) and at the end (y) of a certain course are given below

Trainees	A	B	C	D	E	F	G	H
X	1	2	4	5	6	8	3	7
y	2	4	3	7	8	1	5	6

c) The equations of two regression lines are $3x + 2y - 26 = 0$ and $6x + y - 31 = 0$ .Find

i) Means of X and Y

ii) Correlation coefficient

iii) Estimate of Y for X=2.

d) Solve the given two machine problem

jobs	A	B	C	D	E	F
M_1	30	120	50	20	90	110
M_2	80	100	90	60	30	10

ALL THE BEST