

[8/A-8]  
ENG

SEAT No. \_\_\_\_\_

No. of Printed Pages : 03

**SARDAR PATEL UNIVERSITY**  
**B.COM SEMESTER-IV EXAMINATION**  
**TUESDAY 9<sup>th</sup> APRIL 2019**  
**10:00 A.M to 12:00 P.M**  
**UB04CCOM05 : BUSINESS STATISTICS-II**

Total Marks:- 60.

Q.1 (A) Explain scatter diagram method of correlation. (07)

(B) Find Karl Pearson's co-efficient of correlation between the values of  $x$  and  $y$ . (08)

$x :$	78	89	96	69	59	79	68	61	64
$y :$	125	137	156	112	107	136	123	108	108

OR

Q.1 (A) Find rank correlation from the following data. (07)

$x :$	60	72	42	40	45	50	60	51	66
$y :$	35	30	52	54	48	50	30	35	25

(B) Calculate co-efficient of correlation from the following results. (08)

(i)  $n = 5, \quad \sum x = 30, \quad \sum y = 65, \quad \sum (x - 6)^2 = 30,$   
 $\sum (y - 13)^2 = 34, \quad \sum (x - 6)(y - 13) = 30$

(ii)  $n = 13, \quad \sum x = 117, \quad \sum x^2 = 1313, \quad \sum y = 260,$   
 $\sum y^2 = 6580, \quad \sum xy = 2827$

Q.2 (A) The equations of regression line of  $y$  on  $x$  and  $x$  on  $y$  are respectively (07)  
as follows :

$$2x - 5y + 40 = 0$$

$$10x - 9y = 120$$

Hence (i) Find correlation coefficient between  $x$  and  $y$ .

(ii) estimate  $y$  when  $x = 62$

(iii) obtain the means of  $x$  and  $y$