Maharaja Agrasen Institute of Management Studies
Second Internal Examination
BBA, B&I -II[nd] Semester
Subject: QT&OR, Paper code: 106

Duration: 2Hrs
Marks: 40

Note: - Attempt all Questions.

Q-1 (a) The following are some particulars of the distribution of weights of boys and girls in a class.

	Boys	Girls
Number	100	50
Mean weight	60 kg.	45 kg.
Variance	9	4

Find the standard deviation and mean of the combined data.

b) From the data given below find
(i) the two regression equations ,
(ii) the coefficient of correlation between marks in Economics and Statistics
(iii) the most likely marks in Statistics when marks in Economics are 56.
(iv) the most likely marks in Economics when marks in Statistics are 60.

Marks in Economics	25	28	35	32	31	36	29	38	34	32
Marks in Statistics	43	46	49	41	36	32	31	30	33	39

OR

Q-1 a) Compute the Karl Pearsonsons coefficient of correlation for the age of husbands and wives. And comment upon the value of correlation.

Age of Husband :	23	27	28	29	30	31	33	35	36	39
Age of Wife :	18	22	23	24	25	26	28	29	30	32

b) Two cricketers scored the following runs in the several innings. Find who better run getter is and who is more consistent player? Compare using coefficient of variation.

A	42	17	83	59	72	76	64	45	40	32
B	28	70	31	0	59	108	82	14	3	95

Q2) Solve the following LPP using Simplex method.
Maximize $Z = 5X-2Y+3Z$
Subject to:

$$2X+2Y-Z \geq 2;\ 3X-4Y \leq 3;\ Y+3Z \leq 5$$
$$X, Y, Z \geq 0$$

OR

Solve the LPP by Graphical Method
Minimize $Z = 8X+4Y$
Subject to:

$$3X+Y \geq 27;\quad X+Y = 21;\quad X+2Y \leq 40$$
$$X, Y \geq 0$$