MALINI KISHOR SANGHVI COLLEGE OF COMMERCE & ECONOMICS
SUBJECT: BUSINESS STATISTICS

17|5|22

CLASS: F.Y.B.F.M. SEM-II
SECTION B   40 MARKS

Note: (i) All Questions are compulsory with internal choice.
(ii) Simple Calculator is allowed.
(iii) Graph papers will be provided on request.

Q:2 Solve the following : **(ANY-ONE)**   **10 Marks**

(a)
Calculate 78th Percentile and 7th Deciles for the following distribution.

Daily profit (in Rs.)	100-140	140-180	180-200	200-220	220-240	240-260
No. of Shops	14	45	52	82	32	23

(b)
Calculate Mean , Median and Mode for the following data relating to daily collection
(in '000 of Rs.) of 100 cinema houses.

Collections	:	10-12	12-14	14-16	16-18	18-20	20-22	22-24
Cinema houses	:	11	17	20	22	10	10	10

Q:3 Solve the following : **(ANY-ONE)**   **10 Marks**
(a)
Calculate the quartile deviation for the following distribution giving exports of 100
companies. Also find relative measure.

Exports (in lakhs of Rs.) :	0-30	30-60	60-90	90-120	120-150	150-180
No. of Companies :	8	15	25	32	16	4

(b)

Calculate coefficient of variation from the following data.

Fees (in Rs.)	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500	4500-5000
No. of Groups	4	6	12	15	8	5

Q:4   Solve the following : (ANY-ONE)   **10 Marks**

(a)

Calculate Spearman's rank correlation coefficient for the following.

X	: 25	28	32	36	40	32	39	42	40	45
Y	: 70	80	85	70	75	55	59	65	54	70

(b)

Find the means of x & y variables and the coefficient of correlation between them from the following two regression equations: -

$$2y - x - 50 = 0 \quad ; \quad 3y - 2x - 10 = 0$$

Q:5   Solve the following LPP Graphically: (ANY-ONE)   **10 Marks**

(a)

Maximize

$$Z = 5x + 7y$$

Subject to,

$$12x + 12y \leq 840$$
$$3x + 6y \leq 300$$
$$8x + 4y \leq 480$$
$$x \geq 0, y \geq 0$$

(b)

Minimize

$$Z = 4x + 2y$$

Subject to,

$$x + 2y \geq 4$$
$$3x + y \geq 6$$
$$4x + 3y \geq 12$$
$$x \geq 0, y \geq 0$$