MBA & MBA (Finance) I Semester Supplementary Examinations June/July 2018

STATISTICS FOR MANAGERS

(For students admitted in 2017 only)

Time: 3 hours Max. Marks: 60

SECTION – A

(Answer the following: (05 X 10 = 50 Marks)

*****

1 Calculate arithmetic mean for the following data by short-cut method:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	4	8	11	15	12	6	2

OR

2 Find mode from the following data:

Monthly salary	1000-1500	1500-2000	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500	4500-5000
No. of employees	3	8	16	25	18	7	5	2

3 Obtain the regression lines associated with the following data by the method of least squares.

x	1	2	3	4	5
y	166	184	142	180	338

OR

4 Given that $x = 4y + 5$ and $y = kx + 4$ are the regression lines of x on y and y on x respectively. Show that $0 \le k \le 0.25$. If k = 0.1 actually, find the means of the variables x and y and their coefficient of correlation.

5 5 unbiased coins were tossed simultaneously then what is the probability of getting: (i) Exactly 3 heads. (ii) At least 3 heads. (iii) Zero heads. (iv) At most 2 heads.

OR

6 Fit a binomial distribution to a following data and fore cast theoretical or expected frequencies.

x	0	1	2	3	4	5	6
f	2	10	25	42	20	11	3

7 Distinguish between large and small or exact tests.

OR

8 The average hourly wage of a sample of 150 workers in plant A is Rs. 256 with a standard deviation of Rs. 1.08. Average wage of a sample of 200 workers in plant B Rs. 2.87 with a standard deviation of Rs. 1.28 can be applicant safely. Assume that the hourly wages paid by plant B is higher than plant A.

9 The following data from a study in which random samples of the employees of three government agencies were asked questions about their pension plan.

	Agency I	Agency II	Agency III
For the pension plan	67	84	109
Against the pension plan	33	66	41

Use the 0.01 level of significance to test the null hypothesis that the actual proportions of employees favoring the pension plan are the same.

OR

10 A die 15 thrown 60 times with the following results:

Face	1	2	3	4	5	6
Frequency	8	7	12	8	14	11

Test at 5% level of significance, if the die is honest.

Contd. in page 2

SECTION – B

(Compulsory question, 01 X 10 = 10 Marks)

11 **Case Study/Problem:**

Prepare the analysis of variance for the following data relating to per acre production data of wheat.

Type of land	Type of seeds		
	A	B	C
W	6	5	5
X	7	5	4
Y	3	3	3
Z	8	7	4

*****