FACULTY OF MANAGEMENT

M.B.A. I – Semester (Backlog) Examination, May / June 2017

Subject : Statistics for Management

Course No. : 1.5

Time : 3 hours **Max. Marks : 80**

Note : Answer all the questions.

Part – A (10 X 2 = 20 Marks)
(Short Answer Type)

1 Answer the following questions :

a) Kurtosis

b) Baye's Theorem

c) Joint Probabilities

d) Statistical Independence

e) Random Variable

f) Random sampling method

g) Estimation

h) Test for Goodness of Fit

i) Scatter Diagram

j) Partial Correlation

Part – B (5 X12 = 60 Marks)
(Essay Answer Type)

2 a) Explain the addition and multiplication theorems of probability along with their modified versions.

OR

b) A bag contains 3 white, 4 black and 5 red balls. Three (3) ball are drawn at random one after another without replacement. Find the probability that the first is a white, the second one a black and the third one a red ball.

3 a) Define Normal Distribution. Explain the properties and applications of Normal Distribution.

OR

b) Fit a Poisson distribution to the following data and calculate theoretical frequencies

Deaths	:	0	1	2	3	4
Frequency	:	122	60	15	2	1

4 a) Explain the procedure of testing the hypothesis.

OR

b) A sample of 100 tyres is taken from a lot. The mean life of tyres is found to be 39,150 kms. With a standard deviation of 3260. Could the sample come from a population with mean life of 40,000 kms? Establish 99%. Confidence limits within which the mean life of tyres is expected to lie?

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5 a) What is Chi Square Distribution? Explain the Chi square as a test of independence.

OR

b) Samples of two different types of bulbs were tested for length of life and the following data were obtained.

	Sample size	Sample mean	Sample S.D.
Type-I	8	1234 hrs	36 hrs
Type-II	7	1136 hrs	40 hrs

Is the difference in means significant?

6 a) Explain the methods of calculating the Pearson correlation.

OR

b) Find two regression equations :

X	40	45	52	55	38	42	45	62
Y	75	82	91	77	78	75	80	79

Estimate the value of Y when the value of X is 72.

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