Code No. 5035

FACULTY OF MANAGEMENT
M.B.A. I-Semester Examination, January 2014

Course No. – 1.5
Subject : Statistics for Management

Time : 3 Hours   Max. Marks: 80

PART – A (10 x 2 = 20 Marks)

1   Write short notes on the following in about 75 words each and at one place only.
   (a) Define statistics and state its features
   (b) What is classical approach for probability?
   (c) How to apply additive and multiplicative theorems ?
   (d) What is Baye's theorem?
   (e) What are the probability Distributions?
   (f) What is sampling.
   (g) What is standard error?
   (h) State properties of 't' distribution
   (i) State types of correlation
   (j) What is Time series analysis?

PART – B (5 x 12 = 60 Marks)
Answer all the questions using the internal choice.

2   (a) Discuss the managerial uses of various statistical techniques in detail.

OR

   (b) A company has two plants to manufacture scooters. Plant-I manufactures 80% of the scooters and plant-II manufactures 20%. At plant-I, 85 out of 100 scooters are rated standard quality and at plant-II only 65 out of 100 scooters are rated standard quality.
      (i)   What is the probability that scooter selected at random and came from plant-I, if it is known that the scooter is of standard quality?
      (ii) What is the probability that the scooter came from plant-II, if it is known that the scooter is of standard quality?

3   (a) Explain the significance and application of Binomial, Poisson and Normal distribution.

OR

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

X	0	1	2	3	4
F	123	59	14	3	1

4   (a) Discuss the relative merits and demerits of various sampling methods.

OR

   (b) Random samples drawn from two countries gave the following results regarding the heights of Adult males.

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Particulars	Country-A	Country-B
Mean height	67.42	67.25
Standard deviation	2.58	2.50
No. of observations	1000	12000

Is the difference between the mean heights of two countries significant?

5   (a)   Discuss the managerial uses of correlation and Regression analysis.

OR

(b) From the following data, compute Karl Pearson's coefficient of correlation.

X	6	2	10	4	8
Y	9	11	6	8	7

Arithmetic means of X and Y series are 6 and 8 respectively.

6   (a) To assess the significance of possible variation in performance in a certain test between the grammar schools of a city is given below. From the following results make out an analysis of variance.

Schools

A	B	C	D
8	12	18	13
10	11	12	9
12	9	16	12
8	14	6	16
7	4	8	15

OR

(b) Following is the classification of 100 students according to their Sex and height. Test whether the height of the students is dependent upon the sex.

Height

Sex	Tall	Short
Male	30	40
Female	20	10

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