

STATISTICS FOR MANAGERS

(For students admitted in 2017 & 2018 only)

Time: 3 hours

Max. Marks: 60

SECTION – A

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

- 1 Discuss the application of dispersion measures for business decision making.

OR

- 2 A security analyst studied hundred companies and obtained the following data for the year 1997:

Dividend declared (%)	0-8	8-16	16-24	24-32	32-40
Number of companies	15	30	40	10	5

Calculate the standard deviation of the dividend declared.

- 3 Obtain the lines of regression from the following data:

x:	16	12	10	14	18
y:	19	11	15	18	17

OR

- 4 Define regression. Explain its properties and applications.

- 5 What are the properties of Poisson distribution?

OR

- 6 Potassium blood levels in healthy humans are normally distributed with a mean of 17.0 mg/100 ml, and standard deviation of 1.0 mg/100 ml. Elevated levels of potassium indicate an electrolyte balance problem, caused by Addison's disease. However, a test for potassium level should not cause too many "false positives". What level of potassium should we use so that only 2.5% of healthy individuals are classified as "abnormally high"?

- 7 Explain the steps involved in testing the hypothesis. What are the possible errors that may occur while testing the hypothesis?

OR

- 8 Explain the different types of ANOVA. What are the steps involved in carrying out ANOVA?

- 9 How chi-square is calculated? Explain any two of its applications.

OR

- 10 Explain the different types of non parametric tests.

SECTION – B

(Compulsory question, 01 X 10 = 10 Marks)

Case Study:

The following are the details of sales effected by three sales persons in three door-to-door campaigns.

Sales person	Sales in door – to – door campaign			
A	8	9	5	10
B	7	6	6	9
C	6	6	7	5

Construct an ANOVA table and find out whether there is any significant difference in the performance of the sales persons.
