

STATISTICS FOR MANAGERS

(For students admitted in 2017 & 2018 only)

Time: 3 hours

Max. Marks: 60

All questions carry equal marks

SECTION – A

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

- 1 Explain the nature and significance of statistics. Discuss the application of statistics in business.
- OR**
- 2 Calculate the arithmetic mean and median of the frequency distribution given below. Hence calculate the mode using the empirical relation between the three:

Height (in cms)	No. of students	Height (in cms)	No. of students
130-134	5	150-154	17
135-139	15	155-159	10
140-144	28	160-164	1
145-149	24		

- 3 Calculate Karl Pearson's coefficient of correlation between price and supply of a commodity from the following data:

Price (Rs.)	17	18	19	20	21	22	23	24	25	26
Supply (kg.)	38	37	38	33	32	33	34	29	26	23

OR

- 4 Differentiate between correlation and regression.
- 5 Discuss the properties of a binomial distribution.
- OR**
- 6 Discuss the theorems of probability.
- 7 What is a hypothesis? Explain the types of hypothesis used in research.
- OR**
- 8 Explain the uses of T-test and F-test.
- 9 Discuss the applications of Chi-square test in detail.
- OR**
- 10 What is a one sample sign test? Explain its significance.

SECTION – B

(Compulsory question, 01 X 10 = 10 Marks)

11 **Case Study:**

Find the value of the correlation coefficient from the following table:

Subject	Age X	Glucose level Y
1	43	99
2	21	65
3	25	79
4	42	75
5	57	87
6	59	81
