Roll No. …….

Model Paper– 1
Hi-Tech Institute of Engineering & Technology
B.C.A. Examination
(Semester-3rd) Odd Semester
ELEMENTS OF STATISTICS
(BCA-305)

Time: 3 Hours **Maximum Marks: 75**

Faculty Name: Dr. Vijay Sharma

Note: Attempt questions from all sections as per instructions.

Section – A

Note: Attempt all questions. 5 x 3 = 15

1. Define Discrete and continuous variables.
2. Discuss in brief geometric mean along with its merits and demerits.
3. Define partition values? What purpose do partition values serve?
4. State addition theorem of probability for three events.
5. Distinguish between defects and defectives.

Section – B

Note: Attempt any two questions. 2 x 7.5 = 15

6. What is statistical average or central tendency? Discuss the uses of all measure of central tendency.
7. What is dispersion? Explain various methods of measuring dispersion along with their merits and demerits?
8. Define combinations and permutations, equally likely and mutually exclusive events.

Section – C

Note: Attempt any three questions. 3 x 15 = 45

9. Find the mean, median and mode wage of the following distribution:

Wages (in Rs.)	Number of labourers
20-30	3
30-40	5
40-50	20
50-60	10
60-70	5

10. A consumer affairs agency wants to check the average weight and standard deviation in weight of a new product on the Market. The weight (in grams) of these items are as follows:

Class limits	Frequency
74-77	3
77-80	6
80-83	9
83-86	3
86-89	4

11. From a group of 8 Indians, 4 Australians and 5 Americans of subcommittee of four people it is selected at random. Find the probability that the subcommittee will consist of
    (a) 2 Indians and 2 Australians. (b) 1 Indians, 1 Australians and 2 Americans.
12. (a) Define classical definition of probability? What are its limitations?
    (b) Write a short note on frequency distribution and cumulative frequency distribution.
13. Distinguish between process control and product control. Explain the construction and operation of control chart for number of defective.