

4. State the meaning and importance of correlation and compute the degree of correlation from the following data by any method you like :

X	27	23	24	18	12	10
Y	10	30	25	12	18	13

PART—B

5. Explain with the help of suitable examples the techniques of (i) stratified sampling and (ii) systematic sampling.
6. What are index numbers ? Use imaginary data to prove how Fishers' method satisfies both the Time Reversal and Factor Reversal Tests.
7. What do you understand by Trend of a time series ? How do we measure it ? Fit a straight line trend to the following data by any method you know :
- | | | | | | |
|------------|------|------|------|------|------|
| Year : | 2005 | 2006 | 2007 | 2008 | 2009 |
| Production | 1100 | 1300 | 1400 | 1500 | 1600 |
8. Distinguish between interpolation and extrapolation and state the various methods of interpolation giving examples.

Roll No.

Total No. of Pages : 2

1(ADS)1

THEORY AND PRACTICE OF STATISTICS

IV—C

Time : Three Hours]

[Maximum Marks : 100

- Note :-** (i) Each question or part thereof shall begin on a fresh page.
(ii) Your answers should be precise and coherent.
(iii) Attempt **FIVE** questions in all, selecting at least **TWO** questions from each part.

PART—A

1. Distinguish between primary data and secondary data and discuss the methods of collecting primary data.
2. What do you mean by central tendency ? Enumerate its various measures and compute the size of Mean and Median for the following data :

Marks	No. of Students
0 – 20	15
20 – 40	12
40 – 60	13
60 – 80	06
80 – 100	05
	51

3. What is meant by theoretical distributions ? State and explain the properties of a Normal Distribution.