## Departmental Examination of Other Gazetted Officers of Himachal Pradesh

Paper No.3 Economics and Statistics

Max. Marks:100

Time Allowed: Three Hours

Note: - Attempt any five questions. All questions carry equal marks.

- <u>I. Question</u> Describe the Statistical System in India? What is the role of the Central Statistical Organisation and National Sample Survey Organistion?
- II. Question (a) What are the various methods of presenting statistical data and what is the usefulness of diagrams in presenting statistical data
- (b) What is the importance of statistics to the Economist, Government and Businessman?
- III. Question (a) What do you mean by weights? Why are they assigned? Point out a few cases in which weighted average should be used?
- (b) Monthly incomes of the families are given below in rupees: 2000, 35, 400, 15, 40, 1500, 300, 6, 90, 250, 20, 12, 450, 10, 150, 8, 25, 30, 1200, 60.

Calculate the geometric mean and harmonic mean of the above series?

IV. Question The following marks have been obtained in three papers of statistics in examination by 12 students. In which paper is the general level of the knowledge of the students highest? Given reasons

A- 36, 56, 41, 46, 54, 59, 55, 51, 52, 44, 37, 59

B- 58, 54, 21, 51, 59, 46, 65, 31, 68, 41, 70, 36

C- 65, 55, 26, 40, 30, 74, 45, 29, 85, 32, 80, 39

- V. Question (a) Describe the terms Interpolation and Extrapolation?
- (b) What are the various methods of estimating seasonal variations in historical series?
- <u>VI. Question</u> (a) Describe fully what is meant by correlation and distinguish between positive and negative correlation?
- (b) In Himachal Pradesh the ratio of males to females is 1000: 972. if this tendency is to continue, what is the chance that a newly born baby is female?

<u>VII. Question</u> Describe the concept of National Income and State Income at current and constant price? What do you understand by the term Per Capita Income, Explain?

VIII. Question

(i) Sample and Census Surveys

(ii) Moving average

(iii) Index numbers

(iv) Periodicity

(v) Line of best fit