Mrudu Kondraya for V th sem.
for B.A

Building Mathematical Ability
2 credits

Max. Marks: 70+30 **Hrs. of teaching: 42**

Objectives

To enhance the Mathematical and Statistical ability of the students.

Unit 1 : *Mathematics*

Ratio and Proportion, continued ratio, inverse ratio, continued proportion, direct and inverse proportion, variation, inverse variation, joint variation.

Mathematical logic: Introduction, proposition and truth values, logical connectives, tautology and contradiction, logical equivalences, converse, inverse and contrapositive of a conditional statement.

14 hrs.

Unit 2: *Commercial Mathematics:*

Cost price, selling price, profit and loss, simple interest, compound interest (reducing balance and flat rate of interest), stocks and shares, annuity. Housing loan and insurance, simple equated monthly installments (EMI) calculation.

Income tax: simple calculation of individual tax liability. 14 hrs.

Unit 3: *Statistics*

Sources of data: primary and secondary; types of data, graphical representation of data. Population, sample, variable, parameter, statistic, simple random sampling, use of random number tables.

Measures of central tendency: arithmetic mean, median and mode; measures of dispersion: range, variance, standard deviation and coefficient of variation.

Bivariate data: scatter plot, Pearson`s correlation coefficient, simple linear regression.

14 hrs.

References:

1. Mathematics text books (NCERT, New Delhi) of 10th, 11th and 12th Standards (2014).
2. J. Medhi *Statistical Methods (An Introductory text); Wiley Eastern Ltd.* (latest edition).

Scheme of Examination

End-semester examination: 70 marks

Continuous Assessment : 30 marks (Test/s: 20 marks, Assignment: 10 marks)

Total : 100 marks

Question paper pattern for end-semester examination

a. 40 multiple-choice questions of one mark each = 40 marks
b. 15 multiple-choice questions of two marks each = 30 marks

Total : 100 marks

B. Ray 11/12/15

11/12/15 Siddheshwar

Chairperson

Dr. J. P. JANHAVI
Professor of English
Bangalore University