



# बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

## SYLLABUS

### M.COM. PREVIOUS

#### Paper- III

#### (Compulsory)

#### STATISTICAL ANALYSIS

For Regular Students Theory M.M.: 70

Sessional M.M.: 30

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For Private/Non-collegiate Students Theory M.M.: 100

**Objective:** The Objective of this course is to make the students learn the application of statistical tools and techniques for decision making.

#### Course Inputs:

1. **Univariate Analysis:** An overview of central tendency, dispersion, and skewness.
2. **Probability Theory:** Probability-classical, relative and subjective probability; Addition and multiplication probability models; condition probability and Baye's theorem.
3. **Probability Distributions:** Binomial, Poisson and Normal distributions; their characteristics and applications.
4. **Statistical Decision Theory:** Decision environment; Expected profit under uncertainty and assigning probabilities; Utility Theory.
5. **Sampling and Data collection:** Sampling and sampling probability and non- probability methods; sampling and non-sampling errors; Law of Large Number and Central Limit theorem; Sampling Distribution and their characteristics.
6. **Data Sources:** Primary and secondary; primary data collection techniques-schedule, questionnaire, and interview.
7. **Interpolation & Extrapolation**
8. **Association of attributes (Only two attributes)**
9. **Correlation and Regression Analysis:** two Variable cases.
10. **Index Numbers:** Meaning and types; Weighted aggregative indices-Laspeyre's and Paasch's indices, Lasspeyre's and Passsch's indices compared; indices of weighted average of (price-quantity) relatives; Tests of adequacy; special problems, sifting the base, splicing overlapping index series; uses and problems.
11. **Statistical Quality Control:** Causes of Variations inequality characteristic; quality control charts, purpose and logic; construction control chart, computing the control limits (X and R Charts); Process under control and out of control, Warning limits Control Charts for attributes, fraction defectives and number of defects; Acceptance sampling.

#### References:

- Honda R.P. Statistics for business and Economics, Macmillan, New Delhi.
- Heinz, Kohaller; Statistics for Business and Economics, Harper Collins, New York.
- Hien L.W. Quantitative Approach to Managerial Decisions, Prentice Hll, New Jesery.
- Lawrence B Morse: Statistics for Business and Economics, Harper Collins, NY.
- Levin, Richard 1 and David S Rubin; Statistics for Management, Prentice Hall, Delhi.
- Watsnam tery J.N. Keith Parramor, Quantitative Methods in Finance, International Thompson business press, London.