

MAMASAHEB MOHOL COLLEGE

PUAD ROAD-38

F.Y.Bcom : BUSINESSMATHEMATICS AND STATISTICS

Course Code -: 104 (A)

COURSE OUTCOMES :

- CO1 To helpful in Banking sectors.
- CO2 To prepare for competitive examinations
- CO3 To learn useful functions in business.
- CO4 To understand the basic concept of Statistics, Sampling, and also apply statistical Measures which are used to analyses the data
- CO5 Classification of different measures of central tendency and variations.

Unit No.	Chapter	Course Specific Outcomes CSOs
Unit 1.	Pre-requisites: 1. Natural Numbers and Integers 2. H.C.F and L.C.M. 3. Fractions- addition, subtraction multiplication and division of two or more fractions 4. Laws of Indices 5. Ratio and Percentage 6. Proportion and partnership	To Study H.C.F and L.C.M.. To Study Laws of Indices
Unit 2.	Interest: 1. Simple Interest 2. Compound interest (nominal and effective rate of interest) 3. Equated Monthly Installments (EMI) (Reducing and flat rate of interest) 4. Examples	To understand the concept of Simple interest, compound interest and the concept of EMI.
Unit 3.	Shares and dividends : 1. Concept of Shares, face value, market value, Net Asset Value 2. Equity Shares and Preference shares 3. Dividend 4. Bonus Shares	To understand the concept of shares and to calculate Dividend

	5. Examples	
Unit 4	Population and Sample: 1. Definition and concept of Statistics 2. Scope of Statistics in Economics, Management Science and Industry 3. Concept of Population and Sample 4. Methods of Sampling: Simple Random Sampling and Stratified Random Sampling (Description of procedures only)	To understand the concept of population and sample. To Study the Methods of Sampling
Unit 5.	Measures of central tendency: 1. Variables Qualitative and Quantitative, Raw data, Classification of data, 2. Frequency distribution, cumulative frequency distribution, 3. Histogram (finding mode graphically) Ogive curves and its uses. 4. Measures of central tendency: Mean, Median for ungrouped and Grouped data. 5. Examples	To understand and to calculate various types of averages and variations.
Unit 6.	Profit and Loss : 1. Concept of Cost Price, Marked Price and Selling Price 2. Trade Discount and Cash Discount 3. Commission and Brokerage 4. Examples	To Study the Profit and Loss
Unit 7.	Linear Programming Problems : 1. Definition and terms in a L.L.P. 2. Formulation of L.L.P. 3. Solution by Graphical Method 4. Examples	To Study the Formulation of L.L.P. To Study the Solution by Graphical Method
Unit 8.	Measures of dispersion : 1. Concept of Dispersion 2. Measures of Dispersion – Range, Variance and Standard Deviation (S.D.) for Grouped and ungrouped data 3. Measures of relative dispersion- Coefficient of range and coefficient of Variation 4. Examples	To Study the Concept of Dispersion & Measures of Dispersion To understand Coefficient of range and coefficient of Variation
Unit 9.	Correlation and Regression: 1. Concept of Bivariate data, correlation using scatter diagram 2. Karl Pearson's Coefficient correlation	To Study the use correlation and regression analysis to estimate the relationship between two variables.

	for ungrouped data 3. Spearman's Rank correlation coefficient 4. Concept of regression, lines of regression 5. Regression as prediction Model 6. Examples	
Unit 10.	Index number : 1. Concept of Index Number 2. Construction of Price Index Number 3. Laspeyre's, Paasche's and Fisher's Method 4. Family Budget and Aggregate Expenditure Method 5. Concept of – Cost of Living /Consumer Price Index Number, SENSEX and NIFTY 6. Example	To understand the concept and techniques of different types of index numbers.

Evaluation Methods:

Diagnostic evaluation test to identify slow learner and advanced learner. Bridge course for admitted student according to other faculty (Science & MCVC) to basic knowledge of subject.

Formative and Summative Evaluation

Formative Evaluation : Knowledge, Understanding and Skills.

Summative Evaluation: Group Discussion, Assignment, Mid Sem. Examination and University Examination.

Recommended Books:

1. Practical Business Mathematics by S.A.Bari (New Literature Publishing Company)
2. Business Mathematics by V.K.Kapoor (Sultan Chand and Sons)
3. Fundamentals of Statistics by S.C.Gupta (Himalaya Publishing House)
4. Basic Statistics by B.L.Agrawal (New Age International Publishers) 5. Statistical Methods by S.P.Gupta (Sultan Chand and Sons)