SOLAPUR UNIVERSITY, SOLAPUR

NAAC Accredited-2015
'B' Grade (CGPA 2.62)

Faculty of Commerce

Syllabus

B.Com. II

Business Statistics

With effect from June-2017

Solapur University, Solapur
B.Com.-II (Semester III) Syllabus
Business Statistics

(w. e. f. June 2017)

1) Preamble :

To familiarize the students with basic concepts of the Business Statistics and a hands on practice of the various statistical tools and techniques are the main intentions of this paper. It will enable them to improve their logical reasoning ability and interpretation of various business results. The course aims at acquainting the students with the emerging issues in business, trade and commerce regarding analyzing business facts.

2) Objectives of the course:

1. To expose students to basic Statistical concepts.
2. To inculcate an analytical approach to the subject matter.
3. To stimulate the students interest by showing the relevance and use of Statistical knowledge.
4. To study and critically analyze statistical reasoning to problems of business.
5. To boost quantitative thinking and develop numerical abilities.
6. To enlighten the student abilities to apply the statistical concepts to real life problems in Commerce, Economics, Management and Social sciences.
7. To improve their logical reasoning ability and interpretation of various statistical results.
8. To prepare a base of various courses like C.A.,C.W.A..M.B.A., etc.

3) Advantages of the course:

On successful completion of this syllabi student will be able to get well acquainted with the fundamentals of Statistics. He will have understood the role of Statistics for taking various commercial decisions. He will have developed intelligence by recognizing Statistical Techniques in Decision making at Strategic & Tactical Level. He will be motivated to make his mind set for taking up entrepreneurship as career. He will be able to decide policies of business firms.

4) Eligibilty of the course: B.Com. I or equivalent examination passed or B.Com. I - A.T.K.T. of Solapur University.

5) Duration: First term of B.Com. II

6) Medium of instruction: English

7) Structure of the course:

Course	Title	Theory Lectures Per Week	Total Periods of Teaching in a Semester	Duration Of University Exam	For University Exam		For Internal Exam		Total Marks	
					Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks
B.Com.ll / Sem-IV	Business Statistics	04	60 (15 Weeks)	$2\frac{1}{2}$ Hrs	70	28	30	12	100	40

Solapur University, Solapur
B.Com.-II (Semester III) Syllabus
Business Statistics
(w. e. f. June 2017)

Unit No.	Topic	Subtopics	Periods
1	Introduction to Statistics	**Introduction:** Meaning and Scope, Stages of Statistical Investigation, Methods of data collection, Census and Sampling Methods, Advantages of Sampling Method, Concepts of Simple Random Sampling and Stratified Random Sampling. **Analysis of Uni-variate Data:** Concept of Classification and Tabulation, Construction of frequency distribution, Relative and Cumulative frequency distribution. **Graphical and Diagrammatic Representation:** Construction of Histogram, Frequency Polygon, Ogive Curves, Pie Chart and Pyramids.	20
2	Measures of Central Tendency	Concept of Central Tendency and Requirements of Good Measures of Central Tendency. Mean, Median, Mode and their merits, demerits, comparison. Quartiles, Properties of Arithmetic Mean (without proof). Numerical examples.	15
3	Measures of Dispersion	Concept of Dispersion, Requirements of Good Measures of Dispersion, Absolute and Relative Measures of Dispersion. Range, Quartile Deviation, Mean Deviation about median, Standard Deviation and their relative measures. Variance, Coefficient of Variation, Properties of Standard Deviation (without proof). Numerical examples.	15
4	Correlation and Regression	**Correlation:** Concept, Types of Correlation, Scatter diagram, Measures of Correlation: i) Karl Pearson's Correlation Coefficient (Ungrouped data). Interpretation of $r = +1$, $r = -1$ and $r = 0$. ii) Spearman's Rank Correlation Coefficient. **Regression:** Meaning, Linear Regression, Equations of Regression Lines. Least Square Method (Linear Equation). Relation between Correlation coefficient and Regression coefficients. Numerical examples.	10

Note :

1. Use of soundless calculators are allowed.
2. Graph papers are allowed to use.
3. More stress should be given on commercial applications

List of Reference books:

1. Fundamentals of Statistics- S. C. Gupta.
2. Business Statistics - Bharat Jhunjhunwala
3. Statistical Methods- S. P. Gupta,
4. Introduction to Statistics- C. B. Gupta.
5. Essential Statistics- A. B. Rao.
6. Statistics for all (Volume I) – S. M. Aherkar
7. StatisticsTheory,Methods and Applications- Sancheti,D.C. &Kapoor V.K
8. Business Statistics :An Applied Orientation- P.K. Viswanathan
9. Statistics and their applications to Commerce - Borddigtion
10. Business Statistics- Reddy, C.R Deep Publications, New Delhi.
11. Statistics Problems and Solutions- Kapoor V.K.
12. Fundamentals of Statistics - Elhance.D.N
13. Statistics - Gupta B.N.
14. Practical Business Statistics - Croxton & Crowdorv.
15. Statistics Concepts & Applications- Nabendu Pal & Sahadeb Sarkar
16. Business Statistics- J.K.Sharma
17. Busniess Statistics - R.S.Bharadwa

Equivalent Subject for Old Syllabus

Name of the Old Paper	Name of the New Paper
Business Statistics	Business Statistics

Nature of Question Paper

B.ComII /Sem-III: Business Statistics

Time: - 2 hrs.   **Total Marks-70**

Question No.	Type of Question	Marks

Q. 1	**Multiple choice questions**
	(four alternatives should be given)
	1 ---
	  (a) (b) (c) (d)
	  2
	  3
	  4
	  5
	  6
	  7
	  8
	  9
	  10
	  11
	  12
	  13
	  14
		14

Q. 2	**Short Answer Questions** (A) (B)	07 07
Q. 3	**Short Answer Questions** (A) (B)	07 07
Q. 4	**Long Answer Questions (Attempt 1)** (A) (B)	14 14
Q. 5	**Long Answer Questions (Attempt 1)** (A) (B)	14 14

Solapur University, Solapur
B.Com.-II (Semester IV) Syllabus
Business Statistics

(w. e. f. Winter 2017)

1) Preamble :

The basic purpose of this paper is to familiarize the students with basic concepts of Statistics in Business and a hands on practice of the various statistical techniques. The aim of this course is to impart knowledge to students to improve their logical reasoning ability and interpretation of various business results. The course makes an effort for acquainting the students with the emerging issues in business, trade and commerce regarding analyzing business facts.

2) Objectives of the course:

1. To impart knowledge of basic statistical concepts used in business.
2. To give stress on an analytical approach of the subject matter.
3. To arouse the students interest by showing the relevance and use of Statistical knowledge.
4. To study and critically analyze statistical reasoning to problems of business.
5. To enhance quantitative thinking and build up numerical abilities.
6. To boost the student ability to apply the mathematical concepts to real life problems in Commerce, Economics and Management.
7. To improve their logical reasoning ability and interpretation of various statistical results.

3) Advantages of the course:

On successful completion of this syllabi student will be able to get well acquainted with the fundamentals of Probability. He will have understood the role of probability for taking various decisions. He will have developed intelligence by recognizing statistical techniques in decision making at strategic & tactical Level. He will be provoked to make his mind set for taking up entrepreneurship as career. He will be able to formulate of business problem and solve it to decide policies of business firms.

4) Eligibilty of the course: B.Com. I or equivalent examination passed or B.Com. I - A.T.K.T. of Solapur University.

5) Duration: Second term of B.Com. II

6) Medium of instruction: English

7) Structure of the course:

Course	Title	Theory Lectures Per Week	Total Periods of Teaching in a Semester	Duration Of University Exam	For University Exam		For Internal Exam		Total Marks	
					Max Marks	Min Marks	Max Marks	Min Marks	Max Marks	Min Marks
B.Com.ll / Sem-IV	Business Statistics	04	60 (15 Weeks)	$2\frac{1}{2}$ Hrs	70	28	30	12	100	40

Solapur University, Solapur
B.Com.-II (Semester IV) Syllabus
Business Statistics

(w. e. f. Winter 2017)

Unit No.	Topic	Subtopics	Periods
1	Statistical Quality Control (SQC)	Concept and need of SQC, Advantages of SQC, Chance and Assignable Causes, Process control and Product control. i) Control chart for Mean and Range. ii) Control chart for number of defectives (np-chart) for a fixed sample size. iii) Control chart for number of defects per unit (C-chart). Numerical examples.	14
2	Index Numbers	Need and Meaning of Index Numbers, Price, Quantity and Value based index numbers, Simple (un-weighted) index numbers, Weighted index numbers, Laspeyre's, Paasche's and Fisher's price and quantity index numbers. Simple examples.	15
3	Probability and Probability Distributions	<u>Probability :</u> Sample space, Events, Classical definition of probability, Addition and Multiplication laws of probability (without proof). Examples without use of permutation and combination. <u>Binomial Distribution:</u> Probability mass function (p.m.f.); Mean and Variance (without proof), Simple examples to find probabilities and parameters of the distribution. <u>Normal Distribution:</u> Probability density function (p.d.f); Mean and Variance (without proof), Definition of Standard Normal Variate and its p.d.f., properties of normal curve, Examples to find probabilities for given area under standard normal curve.	16
4	Time Series	Definition, Components of Time Series, Methods for determination of trend: i) Method of Moving Averages ii) Method of Least Squares (only for straight line). iii) Method of Progressive Averages. Determination of Seasonal Variation by Simple Average Method. Numerical examples.	15

Note :

1. Use of soundless calculators are allowed.
2. Graph papers are allowed to use.
3. More stress should be given on commercial applications

Reference books:

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13. Statistics - Gupta B.N.
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16. Business Statistics- J.K.Sharma
17. Busniess Statistics - R.S.Bharadwa

Equivalent Subject for Old Syllabus

Sr. No.	Name of the Old Paper	Name of the New Paper
1)	Business Statistics	Business Statistics

Nature of Question Paper

B.ComII /Sem-IV: Business Statistics

Time: - $2\frac{1}{2}$hrs.   Total Marks-70

Question No.	Type of Question	Marks
Q. 1	**Multiple choice questions** **(four alternatives should be given)** 1 -- (a) (b) (c) (d) 2 3 4 5 6 7 8 9 10 11 12 13 14	14
Q. 2	**Short Answer Questions** (A) (B)	07 07
Q. 3	**Short Answer Questions** (A) (B)	07 07
Q. 4	**Long Answer Questions (Attempt 1)** (A) (B)	14 14
Q. 5	**Long Answer Questions (Attempt 1)** (A) (B)	14 14