

॥ अंतरी पेटव्व ज्ञानज्योत ॥
NORTH MAHARASHTRA UNIVERSITY, JALGAON.

Draft Syllabus for the Course STATISTICAL PREREQUISITES for
F.Y.B.A. Students STATISTICAL PREREQUISITE.
PREREQUISITES for knowledge of High School.

Objectives :-

The main objective of this course is to acquaint students with some basic concept of statistics. For the study of the subjects, Geography, Economics, Psychology etc. at the degree and post graduate level the knowledge of this course will extremely be helpful to the students.

SYLLABUS

1. : Statistics.
 - 1.1 : Meaning and importance of statistics.
 - 1.2 : Relationship with other Sciences.
2. : Population and sample.
 - 2.1 : Notion of a statistical population, types of populations, and a sample from populations with illustrations.
 - 2.2 : Description of simple random sampling with and without replacment (SRSWR and SRSWOR), stratified random sampling & systematic sampling.
3. : Collection of data.
 - 3.1 : Primary and secondary data.
 - 3.2 : Methods of collection of primary data.
 - 3.3 : Meaning of questionnaire.
4. : Classification : meaning and characteristics of an ideal classification.
 - 4.1 : Classification and Tabulation.
 - 4.2 : Types of classification.
 - 4.3 : Formation of frequency distribution.
 - 4.4 : Tabulation of data : meaning & definition.
 - 4.5 : Rules of Tabulation.
 - 4.6 : Type of Tabulation (One way & two way only)
 - 4.7 : Simple problems.
5. : Diagramatic & Graphical Representation.
 - 5.1 : Bar diagram, PI diagram.
 - 5.2 : Histogram, Frequency polygon, frequency curve, ogive curve (Less than & more than).
 - 5.3 : Uses and limitations of diagramatic & graphical representation.

END OF THE FIRST TERM.

Draft Syllabus for the Course applied Statistics at F.Y.B.A.
from June, 1992.

@ Applied Statistics (General) @

Pre-requisties :-

Knowledge of High School Arithmetic.

Objectives :-

The main objective of this course is to acquaint students with some basic concept of statistics. They will be introduced to some elementary statistical methods of analysis of data.

The study of this paper will extremely be helpful for the students who will study Economics, Geography, Psychology, B.Ed. degree infuture.

SYLLABUS.

1. : Statistics.
 - 1.1 : Meaning & importance of statistics.
 - 1.2 : Primary & Secondary data.
 - 1.3 : Methods of collection of data.
 - 1.4 : Meaning of questionnaire.
 - 1.5 : Requirements of good questionnaire.
 - 1.6 : Uses of questionnaire.
2. : Frequency Distributions:-
 - 2.1 : Nations of discrete & continuous variables.
 - 2.2 : Construction of frequency distributions, discrete and continuous type, Inclusive & Exclusive methods of classification.
 - 2.3 : Construction of cumulative frequency distributions.
 - 2.4 : Numerical problems.
3. : Graphical and Diagramtic representation.
 - 3.1 : Histogram, Frequency polygon, Frequency curve, Ogive curve (less than & more than type)
 - 3.2 : Bar diagram, multiple bar diagram, pie diagram.
 - 3.3 : Uses & limitations of graphical & diagramtic representation
 - 3.4 : Examples & Problems.
4. : Tabulation
 - 4.1 : Meaning of a statistical table.
 - 4.2 : Construction of statistical tables : parts of table, rules of tabulation.
 - 4.3 : Construction of tables with one & two factors of classification.
 - 4.4 : Requirements of a good table
 - 4.5 : Uses of tabulation.
 - 4.6 : Simple problems.

- 5. : Measures of central tendency.
- 5.1 : Concept of central tendency of statistical data. Requirements of a good statistical central tendency.
- 5.2 : Arithmetic mean (A.M.) Definition, computation of mean for ungrouped & grouped data by direct method, Combined mean for two groups only. Merits and demerits.
- 5.3 : Median : Definition, computation of median for ungrouped and grouped data by formula & graphical method. Merits & demerits.
- 5.4 : Mode : Definition, computation of mode for ungrouped and grouped data by formula & graphical method. Merits & demerits. (Method of grouping is not expected.
- 5.5 : Simple numerical problems

- END OF THE FIRST TERM -

- 6. : Measures of Dispersion.
- 6.1 : Concept of dispersion.
- 6.2 : Range, Definition, Computation for ungrouped and grouped data, merits & demerits.
- 6.3 : Standard deviation : Definition, Computation for ungrouped and grouped data by direct method. Merits and demerits.
- 6.4 : Coefficient of variation (CV) : Definition computation & uses of C.V.
- 6.5 : Simple numerical problems.
- 7. : Skewness :
- 7.1 : Concept of skewness of frequency distribution.
- 7.2 : Type of skewness : Positive skew, negative skew, Zero skew
- 7.3 : Karl pearsons coefficient of skewness:

$$\text{Definition, } S_k = \frac{\text{Mean} - \text{Mode}}{S.B.}$$

Interpretation of S_k .

- 7.4 : Simple numerical problems.
- 8. : Index numbers : I (with special reference to price I.N.)
- 8.1 : Meaning of I.N.
- 8.2 : Steps in the construction of price I.N.
- 8.3 : Difficulties in the construction of price I.N.
- 8.4 : Unweighted & weighted I.N.
- 8.5 : Computation of price I.N. by using.
 - i) Laspyre's method.
 - ii) Pasche's method.
 - iii) Fishers method.
- 8.6 : Simple numerical problems.
- 9. : Time series
- 9.1 : Meaning of time series.
- 9.2 : Components of time series.

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9.3 : Estimation of secular trend by moving average method.

9.4 : Simple numerical problems.

10. : Census

10.1: General Principles of census.

10.2: Defacto & Dejure method.

10.3: Indian census 1981 & 1991.

N.B. :- 1) Students are allowed to write the answers either in English or in Marathi. 2) Students are allowed to use the calculators during the examination.

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