CIRCULAR :-

A reference is invited to the Scheme of papers relating to the B.A. degree course *vide* this office Circular No.UG./428 of 2003 dated 3rd September,2003 and the Principals of the affiliated colleges in Arts and Professor-cum Director, Institute of Distance Education are hereby informed that the recommendation made by the Board of Studies in Statistics at its meeting held on 18th June,2007 has been accepted by the Academic Council at its meeting held on 10th August,2007 *vide* Item No.4.13 and that, in accordance therewith, the syllabus in the subject of Statistics Paper I- **Descriptive Statistics** at the F.Y.B.A. examination is revised as per Appendix and that the same will be brought into force with effect from the academic year 2008-2009.

MUMBAI-400 032

10th October, 2007

for I/c. REGISTRAR

To,

The Principals of the affiliated colleges in Arts and Professor-cum-Director, Institute of Distance Education.

A.C./4.13/10.08.2007

No.UG/408- A   of 2007,   MUMBAI-400 032   10th October, 2007

Copy forwarded with compliments for information to :-

1) The Dean, Faculty of Arts,
2) The Chairman, Board of Studies in Statistics
3) The Officer on Special Duty-and Controller of Examinations

for I/c. REGISTRAR

Copy to :-

The Director, Board of College and University Development, , the Deputy Registrar (Eligibility and Migration Section), the Director of Students Welfare, the Executive Secretary to the Vice-Chancellor, the Pro-Vice-Chancellor, the Registrar and the Assistant Registrar, Administrative sub-center, Ratnagiri for information .

The Officer on Special Duty and Controller of Examinations (10 copies), the Finance and Accounts Officer (2 copies), Record Section (5 copies), Publications Section (5 copies), the Deputy Registrar, Enrolment, Eligibility and Migration Section (3 copies), the Deputy Registrar, Statistical Unit (2 copies), the Deputy Registrar (Accounts Section),Vidyanagari (2 copies), the Deputy Registrar, Affiliation Section (2 copies), the Director, Institute of Distance Education,(10 copies) the Director University Computer Center (IDE Building), Vidyanagari, (2 copies) the Deputy Registrar (Special Cell), the Deputy Registrar,(PRO) . the Assistant Registrar, Academic Authorities Unit (2 copies)and the Assistant Registrar, Executive Authorities Unit (2 copies) . They are requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to in the above Circular and that no separate Action Taken Report will be sent in this connection. the Assistant Registrar Constituent Colleges Unit (2 copies), BUCT(1 copy), the Deputy Account, Unit V(1 copy), the In-charge Director, Centralize Computing Facility (1 copy), the Receptionist (1 copy), the Telephone Operator (1 copy), the Secretary MUASA (1 copy), the Superintendent, Post-Graduate Section (2 copies), the Superintendent, Thesis Section (2 copies)

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UNIVERSITY OF MUMBAI

Revised Syllabus
at the F.Y.B.A. examination
(Paper-I)
Descriptive Statistics
in
Statistics

(with effect from the academic year June 2008·2009)

UNIT-1 Concepts of a statistical population and sample from a population; 15 1. qualitative and quantitative data, time series data: discrete and continuous data.

Different types of scales: nominal, ordinal, interval and ratio.

Primary data- designing a questionnaire and a schedule, checking their consistency.

Secondary data – its major sources including some government publications.

Presentation of data: Construction of tables with one, two or three factors of classification. Requirements of a good statistical table.

UNIT-2 Diagrammatic representation using Bar diagrams and Pie chart.   15 1

Univariate frequency distribution of discrete and continuous variables.

Cumulative frequency distribution.

Bivariate frequency distribution. Marginal and Conditional frequency distributions.

Graphical representation of frequency distribution by Histogram, Frequency polygon, Stem and leaf diagram and Cumulative frequency polygon.

UNIT-3 Concept of Central tendency or location of a data

Measures of Central tendency or location.

Arithmetic mean (simple and weighted), Combined mean.

Geometric mean.

2

Median, Quartiles, Deciles, Percentiles; Mode.

Uses of Mean, Median and Mode their Merits , demerits.

Requirements of a good average.

UNIT- 4
Range, Semi-inter quartile range, Mean absolute deviation, Variance, 15 L.

Standard deviation.

Coefficient of variation.

Raw and central moments up to fourth order and relationships among them. (Statement only).

Measures of Skew ness and Kurtosis based on moments and quartiles.

Application of Skewness and Kurtosis. Box-Whisker plot.

UNIT- 5
Bivariate data : 15

Scatter diagram.

Product moment correlation coefficient and its properties. Coefficient of Rank correlation – Spearman's measure.

UNIT- 6
Index Numbers:

Index number as a comparative tool.

Simple and composite Index numbers.

Laspeyre's, Paasche's, Marshall-Edgeworth's, Drobisch and Bowley's , Fisher's Index Numbers formula. Quantity Index Numbers and Value Index Numbers. Time reversal test. Factor reversal test. Circular test. Base shifting, Splicing and deflating. Fixed based Index numbers. Chain Index Numbers.

3

Cost of Living Index Number. Concept of Real Income using whole sale price Index number.

Stages in the construction of Price Index Numbers

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

At least one practical on EACH OF THE FOLLOWING topics (or a group of topics) should be conducted.

TOPICS FOR PRACTICALS:

1. Classification.
2. Tabulation.
3. Graphs
4. Diagrams
5. Measures of Central Tendency-I.
6. Measures of Central Tendency-II
7. Measures of Dispersion.
8. Skewness and Kurtosis.
9. Correlation Analysis.
10. Index Numbers.

Students are required to do at least two practicals i.e. Six Lecture periods with the help of any one of the Computerized Statistical Software,

4

References:

1. Spiegel M.R.: Theory and Problems of Statistics, Schaum's Publications series. Tata McGraw-Hill.

2. B. L. Agarwal : Basic Statistics, New Age International Ltd.

3. Hogg R.V.and Tannis E.P.: Probability and Statistical Inference. McMillan Publishing Co.

4. Kothari C.R.: Research Methodology, Wiley Eastern Limited.

5. Goon A. M., Gupta M.K., Dasgupta B.: Fundamentals of Statistics, Volume I.: The World Press Private Limited, Calcutta.

Work- Load:

Theory: 3 Lectures per week per paper.

Practicals: 3 Lecture periods per paper per week per batch
ALLTHESE THREE LECTURE PERIODS OF PRACTICALS SHOULD BE CONDUCTED IN SUCCESSION TOGETHER ON A SINGLE DAY.

Examination:

PRACTICAL:
It shall consist of one paper of 3 duration of hours. The question paper shall have two questions (with internal options) carrying 15 marks each.
Marks to the extent of Five shall be reserved for the Journal.
Marks to the extent of Five shall be reserved for the conduct in Computer Practicals.
(15 + 15 + 05 + 05 = 40)

PRACTICAL:

It shall consist of one paper of 3 duration of hours. The question paper shall have two questions (with internal options) carrying 15 marks each.

Marks to the extent of Five shall be reserved for the Journal.

Marks to the extent of Five shall be reserved for the conduct in Computer Practicals.

(15 + 15 + 05 + 05 = 40)

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