### B.A/B.Sc. I Year I Semester (CBCS)

**Paper-I: Descriptive Statistics and Probability (DSC-2A)**
- 4 HPW with 4 Credits and 100 Marks
- Practical Paper – I (with 2 HPW, Credits 2 and Marks 50)

### B.A/B.Sc. I Year II Semester (CBCS)

**Paper-II: Probability Distributions (DSC-2B)**
- 4 HPW with 4 Credits and 100 Marks
- Practical Paper – II (with 2 HPW, Credits 2 and Marks 50)

### B.A/B.Sc. II Year III Semester (CBCS)

- Examination at the end of II Year III Semester (SEC-1) and Paper-III: Statistical Methods (DSC-2C)
- 2 HPW with 2 Credits and 50 Marks.
- 4 HPW with 4 Credits and 100 Marks
- No Practical
- Examination at the end of Semester III Practical Paper – III (with 2 HPW, Credits 2 and Marks 50)

### B.A/B.Sc. III Year IV Semester (CBCS)

**Paper-IV: Inference (DSC-2D)**
- 2 HPW with 2 Credits and 50 Marks.
- 4 HPW with 4 Credits and 100 Marks
- No Practical
- Practical Paper – IV (with 2 HPW, Credits 2 and Marks 50)

### B.A/B.Sc. III Year V Semester (CBCS)

- Examination at the end of III Year V Semester, SEC-3
- Examination at the end of III Year, Semester V
- GE – 1 (with 2 HPW, Credits 2 and Marks 50).
- No Practical

### Generic Elective-GE-1

- Examination at the end of III Year V Semester.
- 3 HPW with 3 Credits
- No Practical
- Practical Paper – V (with 2 HPW, Credits 1)
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<tr>
<th>Course</th>
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<td>Examination at the end of III Year VI Semester. SEC-4.</td>
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<tr>
<td>Generic Elective-GE-2</td>
<td>Examination at the end of III Year, Semester VI.</td>
<td>GE – 2 2 HPW, with Credits 2 and Marks 50</td>
<td>No Practical</td>
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Mahatma Gandhi University
B.A/B.Sc. I Year I Semester (CBCS): Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of I Year I Semester)
Paper-I: Descriptive Statistics and Probability (DSC-2A)
(4 HPW with 4 Credits and 100 Marks)

Unit –I

Descriptive Statistics: Concept of primary and secondary data. Methods of collection and editing of primary data. Designing a questionnaire and a schedule. Sources and editing of secondary data. Classification and tabulation of data. Measures of central tendency (mean, median, mode, geometric mean and harmonic mean) with simple applications. Absolute and relative measures of dispersion (range, quartile deviation, mean deviation and standard deviation) with simple applications. Importance of moments, central and non-central moments, and their interrelationships, Sheppard’s corrections for moments for grouped data. Measures of skewness based on quartiles and moments and kurtosis based on moments with real life examples.

UNIT-II

Probability: Basic concepts in probability—deterministic and random experiments, trail, outcome, sample space, event, and operations of events, mutually exclusive and exhaustive events, and equally likely and favourable outcomes with examples. Mathematical, statistical and axiomatic definitions of probability with merits and demerits. Properties of probability based on axiomatic definition. Conditional probability and independence of events. Addition and multiplication theorems for n events. Boole’s inequality and Bayes’ theorem. Problems on probability using counting methods and theorems.

UNIT-III

Random Variables: Definition of random variable, discrete and continuous random variables, functions of random variables, probability mass function and probability density function with illustrations. Distribution function and its properties. Transformation of one-dimensional random variable (simple 1-1 functions only). Notion of bivariate random variable, bivariate distribution and statement of its properties. Joint, marginal and conditional distributions. Independence of random variables.

UNIT-IV

Mathematical Expectation: Mathematical expectation of a function of a random variable. Raw and central moments and covariance using mathematical expectation with examples. Addition and multiplication theorems of expectation. Definition of moment generating function (m.g.f), cumulant generating function (c.g.f), probability generating function (p.g.f) and characteristic function (c.f) and statements of their properties with applications. Chebyshev’s, and Cauchy-Schwartz’s inequalities and their applications.
List of reference books:

1. Charles M. Grinstead and Laurie Snell: Introduction to Probability, American Mathematical Society
7. Sanjay Arora and Bansilal: New Mathematical Statistics: Satya Prakashan, New Delhi
9. Sambhavyata Avadhi Siddantalu—Telugu Academy
10. Sahasambhandham-Vibhajana Siddantamulu—Telugu Academy
B.A/B.Sc. I Year: Statistics Syllabus  
(With Mathematics Combination)  
(Examination at the end of Semester I)  
Practical Paper – I (with 2 HPW, Credits 2 and Marks 50)

1. Basics of Excel - data entry, editing and saving, establishing and copying formulae, built in Functions in excel, copy and paste and exporting to MS word document. (Not for The Examination).
2. Graphical presentation of data (Histogram, frequency polygon, Ogives).
3. **Graphical presentation of data (Histogram, frequency polygon, Ogives) using MS Excel**
4. Diagrammatic presentation of data (Bar and Pie).
5. **Diagrammatic presentation of data (Bar and Pie) using MS Excel**
7. Computation of coefficients of Skewness and Kurtosis – Karl Pearson’s and Bowley’s $\beta_1$ and $\beta_2$.
UNIT-I
Discrete distributions: Uniform, Bernoulli, Binomial, Poisson, Negative binomial, Geometric and Hyper-geometric(mean and variance only) distributions their applications and uses.

UNIT-II
Properties of these distributions such as m.g.f, c.g.f, p.g.f, c.f, and moments up to fourth order and their real life applications. Reproductive property wherever exists. Binomial approximation to Hyper-geometric, Poisson approximation to Binomial and Negative binomial distributions.

UNIT-III
Continuous distributions: Rectangular and Normal distributions. Normal distribution as a limiting case of Binomial and Poisson distributions. Exponential, Gamma, Beta of two kinds (mean and variance only) and Cauchy (definition and c.f only) distributions.

UNIT-IV
Properties of these distributions such as m.g.f, c.g.f, c.f, and moments up to fourth order, their real life applications and reproductive property wherever exists.
Statement and applications of weak law of large numbers, Strong law of large numbers and central limit theorem for identically and independently distributed (i.i.d) random variables with finite variance.

List of reference books:
B.A/B.Sc. I Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester II)
Practical Paper – II (with 2 HPW, Credits 2 and Marks 50)

1. Fitting of Binomial distribution – Direct method.
2. Fitting of Binomial distribution – Direct method using MS Excel.
5. Fitting of Poisson distribution – Direct method using MS Excel.
7. Fitting of Negative Binomial distribution.
11. Fitting of Exponential distribution.
12. Fitting of Exponential distribution using MS Excel.
Mahatma Gandhi University  
B.A/B.Sc. II Year III Semester (CBCS): Statistics Syllabus  
(With Mathematics Combination)  
(Examination at the end of II Year III Semester)  
Paper-III: Statistical Methods (DSC-2C)  
(4 HPW with 4 Credits and 100 Marks)

Unit – I


Unit – II

Fitting of quadratic and power curves. Concepts of partial and multiple correlation coefficients (only for three variables). Analysis of categorical data, independence and association and partial association of attributes, various measures of association (Yule’s) for two way data and coefficient of contingency (Pearson and Tcherprow), coefficient of colligation.

Unit – III

Concepts of population, parameter, random sample, statistic, sampling distribution and standard error. Standard error of sample mean(s) and sample proportion(s). Exact sampling distributions - Statement and properties of χ², t and F distributions and their interrelationships. Independence of sample mean and variance in random sampling from normal distributions.

Unit – IV

List of Reference Books:

13. K.V.S. Sarma: Statistics Made simple do it yourself on PC, PHI
B.A/B.Sc. II Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester III)
Practical Paper – III (with 2 HPW, Credits 2 and Marks 50)

1. Generation of random samples from Uniform (0,1), Uniform (a,b) and exponential distributions.
2. Generation of random samples from Normal and Poisson distributions.
3. Simulation of random samples from Uniform (0,1), Uniform (a,b), Exponential, Normal and Poisson distributions using MS Excel.
4. Fitting of straight line and parabola by the method of least squares.
5. Fitting of straight line and parabola by the method of least squares using MS Excel.
6. Fitting of power curves of the type $y = ax^b$, $y = ab^x$ and $y = ae^{bx}$ by the method of least squares.
7. Fitting of power curves of the type $y = ax^b$, $y = ab^x$ and $y = ae^{bx}$ by the method of least squares using MS Excel.
9. Computation of Pearson’s, Tcherprows coefficient of contingency.
10. Computation of correlation coefficient and regression lines for ungrouped data.
11. Computation of correlation coefficient, forming regression lines for ungrouped data.
12. Computation of correlation coefficient, forming regression lines for grouped data.
13. Computation of correlation coefficient, forming regression lines using MS Excel.
15. Computation of multiple and partial correlation coefficients using MS Excel.
16. Computation of correlation ratio
Unit –I

Concepts of statistical hypotheses, null and alternative hypothesis, critical region, two types of errors, level of significance and power of a test. One and two tailed tests, test function (non-randomized and randomized). Neyman-Pearson’s fundamental lemma for Randomized tests. Examples in case of Binomial, Poisson, Exponential and Normal distributions and their powers. Use of central limit theorem in testing.

Unit II

Large sample tests and confidence intervals for mean(s), proportion(s), standard deviation(s), and correlation coefficient(s).

Unit – III

Tests of significance based on $\chi^2$, $t$ and $F$. $\chi^2$-test for goodness of fit and test for independence of attributes. Definition of order statistics and statement of their distributions.

Unit – IV

Non-parametric tests- their advantages and disadvantages, comparison with parametric tests. Measurement scale- nominal, ordinal, interval and ratio. One sample runs test, sign test and Wilcoxon-signed rank tests (single and paired samples). Two independent sample tests: Median test, Wilcoxon –Mann-Whitney U test, Wald Wolfowitz’s runs test.

List of Reference Books:

4. Sanjay Arora and Bansilal: New Mathematical Statistics Satya Prakashan, New Delhi
B.A/B.Sc. II Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester IV)
Practical Paper – IV (with 2 HPW, Credits 2 and Marks 50)

1. Large sample tests for mean(s), proportion(s), Standard deviation(s) and correlation coefficient.
2. Small sample tests for single mean and difference of means and correlation coefficient.
3. Paired t-test.
4. Small sample tests for mean(s), paired t-test and correlation coefficient using MS Excel.
5. Small sample test for single and difference of variances.
6. Small sample test for single and difference of variances using MS Excel.
7. χ² – test for goodness of fit and independence of attributes.
8. χ² – test for goodness of fit and independence of attributes using MS Excel.
9. Nonparametric tests for single and related samples (sign test and Wilcoxon signed rank test) and one sample runs test.
10. Nonparametric tests for two independent samples (Median test, Wilcoxon Mann Whitney - U test, Wald - Wolfowitz’s runs test)

Note: Training shall be on establishing formulae in Excel cells and deriving the results. The excel output shall be exported to MSWord for writing inferences.
Mahatma Gandhi University
B.A/B.Sc. III Year V Semester (CBCS): Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of III Year V Semester)
(3 HPW with 3 Credits)

Unit –I

Design of Sample Surveys:

Concepts of population, sample, sampling unit, parameter, statistic, sample frame and standard error.
Principal steps in sample surveys - need for sampling, census versus sample surveys, sampling and non-sampling errors, sources and treatment of non-sampling errors, advantages and limitations of sampling.
Types of sampling: Subjective, probability and mixed sampling methods.
Methods of drawing random samples with and without replacement. Estimates of population mean, total, and proportion, their variances and the estimates of variances in the following methods.
(i) SRSWR and SRSWOR
(ii) Stratified random sampling with proportional and Neyman allocation, and
(iii) Systematic sampling when N= nk.
Comparison of relative efficiencies. Advantages and disadvantages of above methods of sampling.

Unit –II

Determination of seasonal indices by Ratio to moving average, ratio to trend and link relative methods.

Unit –III

Index Numbers: - Concept, construction, uses and limitations of simple and weighted index numbers. Laspeyer’s, Paasche’s and Fisher’s index numbers, criterion of a good index numbers, problems involved in the construction of index numbers. Fisher’s index as ideal index number. Fixed and chain base index numbers. Cost of living index numbers and wholesale price index numbers. Base shifting, splicing and deflation of index numbers.

List of reference books:
B.A/B.Sc. II Year: Statistics Syllabus
Sampling Techniques:
1. Estimation of Population mean, population total and variance of these estimates by
2. Simple random sampling with and without replacement. Comparison between SRSWR and SRSWOR
3. Stratified random sampling with proportional and optimum allocations. Comparison between proportional and optimum allocations with SRSWOR
4. Systematic sampling with $N = nk$. Comparison of Systematic sampling with Stratified and SRSWOR

Time Series Analysis
6. Determination of seasonal indices by the method of Ratio to moving averages.
7. Determination of seasonal indices by the method of Ratio to trend.
8. Determination of seasonal indices by the method of link Relatives.

Index Numbers
9. Computation of all weighted indices.
11. Base shifting, splicing and Deflation.

Statistical Quality Control

1. Construction of $\bar{X}$, $R$ and $\sigma$- charts.
2. Construction of $p$ and $np$ charts with fixed $n$.
3. Construction of $p$ and $np$ charts with varying $n$.
4. Construction of $c$ and $u$ charts.
5. Construction of OC and ASN curves for single and double sampling plan.

Operations Research:
7. Solution of L.P. problem by simplex method.
Unit – I

Statistical Quality Control
Importance of SQC in industry. Statistical basis of Shewhart control charts. Construction of control charts for variables (mean, range and standard deviation) and attributes (p, np, and c-charts with fixed and varying sample sizes). Interpretation of control charts.

Unit – II
Natural tolerance limits and specification limits, process capability index. Concept of Six sigma and its importance.
Acceptance sampling plans: Concept of AQL and LTPD. Producer's risk and consumer's risk. Single and Double sampling plans for attributes and their OC and ASN functions. Design of single and double sampling plans for attributes using Binomial and Poisson distributions.

Unit – III
Linear Programming:

List of reference books

5. Hadley: Linear programming. Addison-Wesley.
10. R.C. Gupta: Statistical Quality Control.
11. O.R. Models and Methods by Chandrasekhar Salimath and Bhupender Parashar, Univ. Press.
(With Mathematics Combination)
(Examination at the end of Semester V)
Practical Paper-VI (Practical using MS-Excel and TORA)
Elective-II-A (with 2 HPW, Credits 1)

Time Series Analysis
2. Determination of seasonal indices by the method of Ratio to moving averages.
3. Determination of seasonal indices by the method of Ratio to trend.
4. Determination of seasonal indices by the method of link Relatives.

Index Numbers
5. Computation of all weighted indices.
7. Base shifting, splicing and Deflation.

Statistical Quality Control
8. Construction of $\bar{x}$, $R$ and $\sigma$- charts.
11. Construction of $c$ and $u$ charts.
12. Construction of OC and ASN curves for single and double sampling plan.

Operations Research:

Note 1: The Practical paper VI includes I and II semesters MS-Excel Practical’s for examination.
Note 2: The question paper consists of TWO sections. Section A Consists of 3 Questions from Semester I And II. Section B consists of 3 questions from Semester V.

Mahatma Gandhi University
B.A/B.Sc. III Year V Semester (CBCS): Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of III Year V Semester)
Paper-VI: Elective-II-B(Bio-Statistics-I)(DSE-2E)
(3 HPW with 3 Credits).

Unit – I

Bioassay
The purpose and structure of biological assay. Types of biological assays, direct assays, Ratio estimates, asymptotic distributions: Feller’s theorem. Regression approach to estimating dose-response, relationships,

Unit – II


Unit – III

Statistical Genetics
Basic terminology of genetics. Frequencies of genes and genotypes, Mendal’s law, Hardy-Weinberg equilibrium. Mating Frequencies, estimation of allele frequency (dominant /co dominant cases). Multiple alleles.

Approach to equilibrium for X-linked gene, natural selection, mutation, genetic drift, equilibrium when both natural selection and mutation are operative.

List of reference books:


B.A/B.Sc. III Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester V)
Practical PaperVI – Elective-II-B (with 2 HPW, Credits 1)

2. Fitting exponential growth model to data by linearization method.
3. Fitting logistic growth model.
5. Dose response relation and estimation by MLE method.
7. Estimation of points on the quantal response.
8. Hardy–Weinberg equilibrium frequencies.
10. Effects of mutation and selection.

The above practical are to be carried out using MS Excel and Manually.

Note: Training shall be in establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS Word for writing inference.
Utility theory, insurance and utility theory, models for individual claims and their sums, survival function, curtate future lifetime, force of mortality.

Unit – II.

Life table and its relation with survival function examples, assumptions of fractional ages, some analytical laws of mortality select and ultimate tables.

Unit – III

Multiple life functions, joint life and last survivor status, insurance and annuity benefits through multiple life functions, evaluation for special mortality laws. Multiple decrement models, deterministic and random survivorship groups, associated single decrement tables, central rates of multiple decrement, net single premiums and their numerical evaluations.

List of Reference books:

5. Federation of Insurance Institutes study courses: mathematical basis of Life Assurance F.I.21 (Published by Federation of Insurance Institutes, Bombay).

B.A/B.Sc. III Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester V)
Practical Paper –VI – Elective-II-C (with 2 HPW, Credit 1)

1. Computation of values of utility function.
2. Computation of various components of life tables.
3. Construction of multiple decrement table for deterministic survival group.
4. Determination of distribution function, survival function and force of mortality.
5. Construction of multiple decrement table for random survivorship group.

The above practical are to be carried out using MS Excel and Manually.

Note: Training shall be in establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS Word for writing inference.
B.A/B.Sc. III Year VI Semester (CBCS): Statistics Syllabus  
(With Mathematics Combination)  
(Examination at the end of III Year VI Semester)  
(3 HPW with 3 Credits)  

Unit –I  

Analysis of Variance and Design of Experiments  

Statement of Cochran’s theorem, ANOVA – one-way, two-way classifications with one observation per cell Expectation of various sums of squares, Statistical analysis, Importance and applications of design of experiments. Principles of experimentation, Concept of Gauss-Markoff linear model with examples, Analysis of Completely randomized Design (C.R.D), Randomized Block Design (R.B.D) and Latin Square Design (L.S.D) including one missing observation, expectation of various sum of squares. Comparison of the efficiencies of above designs.  

Unit –II  


Unit –III  

Demand Analysis: Introduction. Demand and supply, price elasticity of supply and demand. Methods of determining demand and supply curves, Leontief’s, Pigous’s methods of determining demand curve from time series data, limitations of these methods, Pigou’s method from time series data. Pareto law of income distribution curves of concentration.  


List of reference books:  

B.A/B.Sc. III Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester VI)
Practical Paper – VII(with 2 HPW, 1 Credit)

Designs of Experiments

1. Analysis of CRD
2. Analysis of RBD with and without missing observation. Comparison of RBD with CRD
3. Analysis of LSD with and without missing observation. Comparison of LSD with RBD and CRD

Vital Statistics


Demand Analysis

6. Construction of Lorenz curve.
7. Fitting of Pareto law to an income data.

Operations Research and Reliability

1. Optimum solution to balanced and unbalanced transportation problem using North-West corner rule, Matrix minimum method and Vogel’s approximation method for IBFS.
2. Solution of Assignment problem for both maximization and minimization
4. Computation of Optimal Sequence and idle time for N jobs on 2 and 3 machines.
5. Computation of System reliability for series, parallel and K out of N systems.

Mahatma Gandhi University
B.A/B.Sc. III Year VI Semester (CBCS): Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of III Year VI Semester)
(3 HPW with 3 Credits).

Unit-I

Transportation Problem:
Definition of transportation problem, TPP as a special case of LPP, Initial basic feasible solutions by North-West Corner Rule, Matrix minimum methods and VAM. Optimal solution through MODI tableau and stepping stone method for balanced and unbalanced transportation problem. Degeneracy in TP and resolving it. Concept of Transshipment problem.

Unit-II

Assignment Problem:

Unit-III

Sequencing Problems:
Problem of Sequencing. Optimal sequence of N jobs on two and three machines without passing.


List of reference books
2. S.K. Sinha: Reliability and life testing. Wiley Eastern
6. O.R. Models and Methods by Chandrasekhar Salimath and Bhupender Parashar
   University Press.
B.A/B.Sc. II Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester VI)
Practical Paper-VIII– (Using MS-Excel and TORA)
Elective – II-A (with 2 HPW, Credits 1)

Designs of Experiments
1. Analysis of CRD
2. Analysis of RBD with and without missing observation. Comparison of RBD with CRD
3. Analysis of LSD with and without missing observation. Comparison of LSD with RBD and CRD

Vital Statistics

Demand Analysis
6. Construction of Lorenz curve.
7. Fitting of Pareto law to an income data.

Operations research and Reliability:
1. Optimum solution to balanced and unbalanced transportation problem using North-West corner rule, Matrix minimum method and Vogel’s approximation method for IBFS.
2. Solution of Assignment problem for both maximization and minimization
4. Computation of Optimal Sequence and idle time for N jobs on 2 and 3 machines.

Note 1: The Practical paper VIII includes III and IV semesters MS-Excel Practical’s for examination.
Note 2: The question paper consists of TWO sections. Section A Consists of 3 Questions from Semester III And IV. Section B consists of 3 questions from Semester VI.
Unit – I

Survival Analysis
Survival functions and hazard rates. Types of censoring and likelihood in these cases. Life distributions- Exponential, Gamma, Weibull, Lognormal, Pareto. Linear failure rate. Point estimation, confidence intervals, scores, likelihood ratio, MLE, tests for these distributions.

Unit – II

Life Tables and ageing Process

Life tables, failure rates, mean residual life and their elementary properties, Ageing classes and their properties, Bathtub failure rate. Estimation of survival function.

Acturial estimator, Kaplan-Meier estimator, estimation under the assumption of IFR/ DFR. Tests of exponentiality against nonparametric classes, total time on test.

Unit – III

Quantitative Epidemiology
Introduction to modern epidemiology, principles of epidemiological investigation, surveillance and disease monitoring in populations.

Epidemiologic measures: Organizing and presenting epidemiologic data, measures of disease frequency, measures of effect and association, causation and casual inference. Design and analysis of epidemiologic studies.

List of reference books:
1. Selection and the Hardy-Weinberg test.
2. Genetic drift.
3. Parameter estimation in exponential and Weibull distributions—Type-I, Type-II Censoring.
4. LR tests for exponential and Weibull distribution.

The above practical are to be carried out using MS Excel and Manually.

Note: Training shall be in establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS Word for writing inference.
Mahatma Gandhi University
B.A/B.Sc. III Year VI Semester (CBCS): Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of III Year VI Semester)
Paper-VIII: Elective-II-C (Actuarial Statistics-II)(DSE-2F)
(3 HPW with 3 Credits)

Unit – I

Elements of compound interest (nominal and effective rate of interest)
Life annuities: single payment, continuous life annuities, discrete life annuities, life annuities
with monthly payments, communication functions, varying annuities, recursions and complete
annuities- immediate and apportionable annuities – due.

Unit – II

Net premiums: Continuous and discrete premiums, true monthly payment premiums,
apportionate premiums, commutation functions, and accumulation type benefits.

Unit - III

Net premium reserves: continuous and discrete net premium reserve, reserves on a semi
continuous basis, reserves based on true monthly premiums, reserves on an apportionable or
accounted continuous basis reserves at fractional durations.

List of Reference books:

   Mathematics, Society of Actuaries, Ithaca, Illinois, USA.
   Statistics.
5. Federation of Insurance Institutes study courses: mathematical basis of Life Assurance
   F.I.21 (Published by Federation if Insurance Institutes, Bombay).

B.A/B.Sc. III Year: Statistics Syllabus
(With Mathematics Combination)
(Examination at the end of Semester VI)
Practical Paper -VIII–Elective- II-C(with 2 HPW, 1 Credit)

1. Computation of compound interest (nominal and effective rate of interests).
2. Annuities and annuity dues.
4. Annuities payable more frequently than one year.
5. Complete and special annuities.
6. Office premium a.
7. Assurances payable at the moment of death.

The above practical are to be carried out using MS Excel and manually.

Note: Training shall be in establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS Word for writing inference.