SE 202:: Statistical methods Paper -III

Programme Name	Bachelor of Arts
Semester	Third
Course No	CC 202
Course Name	**Statistical methods Paper-III**
Course Type	Elective
Effective From	JUNE – 2012
Objective	To make of students competent to scope with t he increasing important studies of methods.

Unit No.	Content	Marks	Credit
1	Statistical Test and Interval Estimation: Null and alternative hypothesis, Types of error, P- Values, Statement of chi-square, t and F statistics. Testing for the mean and va riance of univariate normal distribution, testing of equality of two means and testing of equality of two variances of two univariate normal distribution, related confidence intervals.	25 %	0.75
2	Large of Sample Tests: Use of central limit theorem for te sting and interval estimation of single mean and single proportion and difference of two means and two proportions. Fisher's Z transformation and uses. Pearson's chi -square test for goodness of fit and for homogeneity for standard distributions contingency table and test of independence in a contingency table.	25 %	0.75
3	Principles of acceptance sampling: Problem of lot acceptance, stipulation of good and bad lots, producer's and consumers risks, single sampling plans, their O.C. function concepts of A.Q.L,LTPD,AOQL, average amount of inspection and A.S.N. function.	25 %	0.75
4	Integration : Integration as anti-derivative process , standard forms methods of integration of substitution , by parts and by use of partial functions, definite integration, properties of definite integrals(without proof).Finding areas in simple cases, simple applications of definite integrals.	25 %	0.75

References:
1. Sancheti & Kapoor : Business Statistics, Sultan Chand & Sons, New Delhi
2. Soni R.S. : Bussiness Mathematics, Pitamber Publishing House
3. S.P.Gupta : Statistical Methods
4. Sancheti & Kapoor : Business Mathematics, Sultan chand & Sons, New Delhi

SE 202:: Statistical methods Paper-V

Programme Name	Bachelor of Arts
Semester	Fourth
Course No	CC 202
Course Name	**Statistical methods Paper-IV**
Course Type	Elective
Effective From	JUNE – 2012
Objective	To make of students competent to scope with the increasing important studies of methods.

Unit No.	Content	Marks	Credit
1	Statistical Quality Control: (S.Q.C): Meaning of scope of statistical Quality Control, general theory of control charts cases of variation in quality, control limits, theory of runs, and chart of variables X and R Charts.	25 %	0.75
2	Statistical Quality Control: (S.Q.C): Charts for attributes p, np and c chart. Design of X and R charts versus p charts, process capability studies.	25 %	0.75
3	Analysis of Variance : For two way classification. Need for design of experiments, fundamentals principles of design ,basic design – C.R.D.,R.B.D.,L.S.D., and their analysis	25 %	0.75
4	Demographic Methods: Sources of demographic data, census, and measurement of mortality and life tables, crude death rates, and infant –mortality rate, standardized death rate, and complete life table – its main features, mortality rate. Measurement of fertility, crude birth rate, general fertility rate, specific fertility rate, total fertility rate, gross reproduction rate, net reproduction rate.	25 %	0.75

References:
1. Sancheti & Kapoor : Business Mathematics, Sultan Chand & Sons, New Delhi
2. Dancan A.J.   : Quality Control and Industrial stastics, taraporwala & sons.
3. S.P.Gupta   : Statistical Methods
4. Cochran & Cox   : Experimental Design

SE 202:: Statistical methods Paper -IV

Programme Name	Bachelor of Arts
Semester	Third
Course No	CC 202
Course Name	**Statistical methods Paper-IV**
Course Type	Elective
Effective From	JUNE – 2012
Objective	To make of students competent to scope with the increasing important studies of methods.

Unit No.	Content	Marks	Credit
1	Index Number: Its definition, applications of index numbers, price relative and quantity or volume relatives, link and chain relatives, problem involved in computation of index numbers, use of average, simple aggregative and weighted average methods, laspey re's , paasche's and fisher's index numbers, time and factor reversal tests of index numbers, cost of living index number.	25 %	0.75
2	Demand, Supply and Elasticity: Laws of demand and supply and its function, Market equilibrium price, Total revenue, Marginal revenue, total cost, marginal cost and its function. Total revenue curve and uses. Price elasticity of demand and supply. Relation between A.R, M.R, and elasticity of demand. Kind of E.D and its importance, monopoly, utility function and indifference curves.	25 %	0.75
3	Time series Analysis: Economic time series, its different components, Trend Seasonal and Cyclical fluctuations. Elimination of trend by the method of moving average and least square method. Seasonal variations by moving average method, Seasonal indices by simple averages and ratio -to moving average method.	25 %	0.75
4	Linear Programming: Elementary of theory of convex sets, definition of general linear programming (L.P.P.) formulation of L.P.P. Examples of L.P.P., problem occurring in various fields, Graphical methods of solving L.P.P. Formulation of transportation problem, its intial basic feasible solution by the North – West corner Method, Matrix Minima and Vogel's approximation method.	25 %	0.75

References:
1. Hooda R.P.   : Statistical for Business and Economics, Mac Millan, New Delhi
2. Loomba and Paul   : Linear Programming, Tata McGraw Hill publishing Company Ltd., New Delhi
3. Allen R.G.D.   : Mathematatical analysis for Economics.
4. L.R.Lapin   : Modern statistics For Business Decisions.

SE 202:: Statistical methods Paper-VI

Programme Name	Bachelor of Arts
Semester	Fourth
Course No	CC 202
Course Name	**Statistical methods Paper-IV**
Course Type	Elective
Effective From	JUNE – 2012
Objective	To make of students competent to scope with the increasing important studies of methods.

Unit No.	Content	Marks	Credit
1	Assignment Problem: Formulation of Problem, Hungarian Method solving the assignment problem. Importance of replacement models, Replacement Problem for items that deteriorate with time and value of money remaining constant.	25 %	0.75
2	Theory of Probability: Definition of Probability, classical and relative frequency approach to probability, random experiment, trial, sample point and sample space, definition of an event, operations of events, mutually exclusive and exhaustive events, discrete sample space, properties of probability base an axiomatic approach. Conditional Probability, independence of events, Additional and multiplication rules. Baye's theorem and its application.	25 %	0.75
3	Probability Distributions: Binomial, Poisson, normal distribution and their uses, statement of central limit theorem only, Fitting of binomial and Poisson distribution to data.	25 %	0.75
4	Correlation and Regression: Correlation Coefficient Scatter Diagram, Bivariate frequency Distribution. Correlation of rank (simple calculation) Karl Person's correlation coefficient. Concept of regression of one the other, fitting of linear and quadratic curves by the method of least squares, product moment correlation and properties.	25 %	0.75

References:
1. Hooda R.P.   : Statistical for Business and Economics, Mac Millan, New Delhi
2. M.R.Spiegel   : Probability and Statistics
3. Shrivatava O.S.   : A Text Book of Demography Vikas Publishing
4. Dancan A.J.   : Quality Control and Industrial Statistics, Taraporwala & Sons.