

Course No.: 09CE6111 Course Title: Applied Statistics and Queuing Theory (L-T-P : 4-0-0) Credits: 4		
MODULES	Contact Hrs	Sem exam marks %
Module I Probability distributions: Random variables, moments and moment generating functions. Standard probability distributions: Binomial, Poisson, Hyper Geometric, Uniform, Gamma and Normal distributions. Two dimensional random variables. Transformation of random variables. Multivariate analysis, factor analysis	14	25
Module II Statistical Inference: Sampling distributions: sampling distributions of sample mean and variance. Confidence interval estimation for population mean.	14	25
FIRST INTERNAL TEST Testing of hypothesis: hypothesis concerning single and two population means. Hypothesis concerning single and two population variances. Test for goodness of fit, chi square test for independence		
Module III Correlation and regression: Simple, partial and multiple correlations. Test for significance of correlation. Regression: principles of least squares. Simple and multiple linear regressions. Test for significance of parameters. Curve fitting by method of least squares	14	25
SECOND INTERNAL TEST		
Module IV ANOVA and Queuing theory: Analysis of variance: Basic assumptions, analysis of one way and two way classified data. Design of experiments: principles of experimentation, Completely Randomized Design, Randomized Block Design, Latin Square Design. 2 Square factorial experiments. Basics of queuing theory: M/M/1 M/M/C queuing models.	14	25
END SEMESTER EXAMINATION		

Course Title: Contract Laws and Regulations

Pre-requisites: Nil

Course Objective:

To study the various types of construction contracts and their legal aspects and provisions and to study the topics related to tenders, arbitration, legal requirement, and labor regulations.

Syllabus:

Construction contracts- Law of Torts - Tenders - Arbitration - World Bank Procedures and Guidelines- Rules of Evidence - Legal Requirements - Labour Regulations - Workmen's Compensation Act.

Course Outcome:

On completion of this course the students will know different types of contracts in construction, arbitration and legal aspect and its provisions.

Text Books:

1. Pollock & Mulla: The Indian Contract Act 1872
2. Avtar Singh, "Law of Contract & Specific Relief"

References:

1. Gajaria G.T., "Laws Relating to Building and Engineering Contracts in India ", M.M.Tripathi Private Ltd.
2. Jimmie Hinze, "Construction Contracts ", 2nd Edition, McGraw Hill, 2001.
3. Joseph T. Bockrath, "Contracts and the Legal Environment for Engineers and Architects ", McGraw Hill.

Internal continuous assessment: 40 marks

Two internal tests: 2 x 15 = 30 Marks

Tutorials/Assignments : 1 x 10 = 10 Marks

End semester Examination: 60 marks