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| Lesson plan of Statistics,session( 2020-21)  **B.Sc/B.A- 6th sem (Statistics)** |  |
| **WEEKS** |  **Chapter** |  |
| 1 | **Statistical Quality Control:** Meaning and uses of SQC, causes of variations in quality,product and process control, control charts, 3- control limits, control chart for variables-X and R chart, |  |
| 2 | criteria for detection of lack of control in X & R Charts, Interpretation of X & R charts, control chart for standard deviation ( charts), control charts for attributes- p and c charts |  |
| 3 | **Acceptance sampling:** Problem of lot acceptance, stipulation of good and bad lots,producer’s and consumer’s risks, single and double sampling plans, their OC functions |  |
| 4 | concepts of AQL, LTPD, AOQL, average amount of inspection and ASN function, rectifying inspection plans. Sampling inspection plans.  |  |
| 5 | Demand Analysis: Laws of supply and demand, price elasticity of demand, demand function with constant price elasticity, partial elasticities of demands (income elasticity & cross elasticity), types of data required for estimating elasticities |  |
| 6 | family budget data, time series data, Leontief’s and Pigous’s methods from time series data to estimate demand functions. Engel’s law, Pareto’s law of income distribution, curves of concentration, Lorenz curve and Gini’s coefficient.  |  |
| 7 | Objectives of O.R., nature and definitions of O.R., Scope of O.R., Meaning and necessity of O.R. models, classification of O.R. models, Advantages & disadvantages of O.R. models. Steps in model formulation, principles of modeling. |  |
| 8 | Characteristics of a good model, Allocation problems, General linear programming problem, formulation of G.L.P.P., (formulation only for Transportation problem, trim loss problem, product mix problem, Diet problem).  |  |
| 9 | Linear programming problem; definition, objective function, constraints, graphical solution of L.P.P., limitation of graphical method, simplex method to solve L.P.P |  |
| 10 | concept of initial basic feasible solution computation procedure for simplex method. (Not included the case of degeneracy) unrestricted variables.   |  |
| 11 | Transportation Problem, Formulation of T.P., BFS to TP, Determination of initial feasible solution North-West corner rules Row minima method, |  |
| 12 | column minima, Matrix minima method (Least cost entry method), Vogel’s Approximation method (or Unit cost penalty method). Assignment problem and its solution.  |  |