Stat-224 Statistical Quality Control and Index Number
50 Marks: 02 Credits
Number of Class: 20-26

Statistical Quality Control : Meaning of Statistical Quality Control (SQC), Process Control and Product Control, Causes of Variation in Quality Product, Basic Principles of Quality Control, Control Chart Techniques, Various Attribute and Variable Control Charts, Acceptance Sampling and Sampling Inspection by Attributes and Variables, Sampling versus Screening, Sampling Plans - Single, Double, Multiple, Continuous Sampling Plans and their Relative Advantages and Disadvantages. Concept of OC, ASN, AOQ, AOQL, AQL and other characteristics of Sampling Plans, Sequential Sampling Plan, OC and ASN of Sequential Sampling.

Index Number: Meaning of Index Number, Problems Involved in Constructing Index Number, Construction of Index Number in Different Methods, Criteria of a Good Index Number, Unit Test, Time Reversal Test, Factor Reversal Test, Circular Test, Cost of Living Index Number, Economic Adviser's Wholesale Price Index Number, Consumer Price Index Number, Base Shifting, Splicing and Deflating of Index Number, Index of Industrial Production, Uses of Index Number and Limitations of Index Number.

Text
1. Montogomery, D.C. (2002): *Introduction to Statistical Quality Control*, 4th edition, John Wiley and Sons, New York.
2. Gupta, S.C. and Kapoor, V.K.: *Fundamental of Applied Statistics*.

References

3. Banks, J.: *Principles of Quality Control*, John Wiley and Sons, New York.
4. Duncan, A.J.: *Quality Control and Industrial Statistics*.
5. Goon, A.M., Gupta, M.K. and Dasgupta: *Fundamental of Statistics*, Vol II, The World Press Private Ltd., India.
6. Grant, E. (1988): *Statistical Quality Control*, McGraw-Hill Education.
7. Grant, E.L. (1996): *Statistical Quality Control*, 7th edition, John Wiley and Sons, New York.
8. Gun, A. M., Gupta, M. K., and Dasgupta, B. (2008): *Fundamentals of Statistics*, World Press.
9. Wetherill,G.B.(1977): *Sampling Inspection and Quality Control*, Chapman and Hall, New York.