

B.COM. SEMESTER – 5

7	Elective – 5	Advance Statistics - 5
----------	---------------------	-------------------------------

Name of the Course: **Advance Statistics - 5**

Course credit: **03**

Teaching Hours: **45 (Hours)**

Total marks: **100**

Objectives:

To familiarize the students with various statistics tools and their application in the business decision making.

Unit	Content	No. of Lectures
1	TESTING OF HYPOTHESIS: <ul style="list-style-type: none"> - Meaning of hypothesis and meaning of Test of hypothesis - Types of hypothesis,(Null, Alternative Composite) - Two types of errors, Level of significant, critical region, power of a test, one tail versus two tail test .acceptance region, confidence interval, - Reliability of sample, Large and small samples, confidence limit, - Procedure of tests of hypothesis - Large sample Tests <ul style="list-style-type: none"> ➤ Test of significant of (i) number of success (ii) proportion of success (iii) difference of two proportion ➤ Test of significant of (i) mean (ii) difference between two means(iii) difference between two S.D (iii) coefficient of correlation - Examples 	13
2	SMALL SAMPLE TESTS: <ul style="list-style-type: none"> - Uses of t- Test - Testing of hypothesis <ul style="list-style-type: none"> ➤ Population mean ➤ Equality of two population means ➤ Population correlation coefficient - Use of F-Test <ul style="list-style-type: none"> ➤ Testing of hypothesis concering equality of two population variances - Use of Fisher's Z transformation <ul style="list-style-type: none"> ➤ Test of hypothesis ➤ Population correlation coefficient ➤ Equality of two population correlation coefficient - Examples 	12



3	CHI SQUARE TEST: <ul style="list-style-type: none"> - Definition of Chi square variate and degree of freedom - Uses of chi square test - To Test Goodness of fit - To Test independence of two attributes - To Test for population variance - Examples 	10
4	ANALYSIS OF VARIANCE: <ul style="list-style-type: none"> - Definition of ANOVA - General ANOVA table for One way classification, two way classification and LSD - Limitation of ANOVA - Examples 	10
Total Lectures		45

SUGGESTED READINGS AND REFERENCE BOOKS:

1. Statistics By D.S. Sancheti and V.K. Kapoor
2. Fundamentals of mathematical statistics By V.K.Kapoor and S.C.Gupta
3. Fundamentals of Statistics By S.C. Srivastva and SangyaSrivastava
4. Statistical methods By S.P.Gupta
5. Practical Statistics By S.C.Gupta
6. Business Statistics By R.S.Bhardwaj

Note: Latest Editions of the above books may be used.

