YEAR – I		PCM701S
SEMESTER - II	ADVANCED BUSINESS STATISTICS	HRS/WK - 6
CORE - 8		CREDIT - 5

### **Objective:**

To apply statistics techniques for interpreting and drawing conclusion for business problems.

### Unit-1

Correlation and regressions -Partial correlation-partial correlation coefficient –Partial correlation in case of four variables- Multiple correlation-Multiple regression.

## Unit-2

[18 HRS]

[18 HRS]

[18 HRS]

Theory of probability rules – Baye's theorem-Probability distribution –Characteristics and application of Binomial , poisson and normal distribution.

## Unit-3

Sampling-Sampling methods –sampling error and standard error-relationship between sample size and standard error. Testing hypothesis testing of mean and proportions –large and small samples-Z test and t test.

### Unit-4

### [18 HRS]

Chi square distribution – characteristics and application – test of goodness of fit and test of independence – Test of homogeneity.

## Unit-5

# [18 HRS]

F distribution – testing quality of population variances-Analysis of variance –one way and two way classification.

## **Reference Books:**

- 1. S.C. Gupta and V.K. Kapoor. Fundamentals of Mathematical Statisctics.
- 2. S.C.Gupta and V.K. Kapoor. Fundamentals of Applied Statistics.
- 3. Sultan chand & Sons. S.P Gupta. 2000. Statistical methods, New Delhi:
- 4. D.C Sancheti and V K Kapoor, *Business statistics*, New Delhi: sultan chand and sons.
- 5. J.K. Sharma, Business Statistics. pearson Education
- 6. Dr D Joseph Anbarasu. *Business statistics and operations research*. Lintech press Trich.
- 7. Richard I Levin and David S. Rubit, 2002. *Statistics for management*. (Seventh ed.) pearson education. New Delhi: