ST.JOSEPH'S COLLEGEFORWOMEN (A), VISAKHAPATNAM VIII SEMESTER STATISTICS TIME: 2Hrs/Week ST 8254(2) DESIGN AND ANALYSIS OF EXPERIMENTS Max. Marks: 50 SYLLABUS

Objectives:

CO1: To understand ANOVA, ANCOVA, fixed and random effect models CO2: To understand the concepts of CRD, RBD, LSD and their missing plot techniques

CO3: To construct the multiple comparison tests and split plot design

CO4: To summarize the analysis of 2n and 32 factorial designs and able to test their

Significance

CO5: To Familiarize with total and partial confounding

CO6: To construct BIBD and PBIBD and to perform their analysis

Learning Outcomes:

LO1: Acquire theoretical foundations for design and analysis of experiments.

LO2: Able to apply ANCOVA technique.

LO3: Expertized in analysis of experiments and perform the data analysis using CRD,

RBD and LSD even in case of missing values and capable of testing the model adequacy.

LO4: Expertize in analyzing factorial designs and estimate factorial effects and test their significance. Experiment confounding techniques to real life problems.

LO5: Able to apply the Youden square design and intra block analysis for estimating

the Parameters of BIBD and PBIBD.

LO6: Expertized in applying different analysis of variance techniques in agricultural

business and industries.

SYLLABUS

List of Practical

- 1. Intra block analysis of BIBD.
- 2. Intra block analysis of asymmetric BIBD.
- 3. Analysis of 22 and 23 factorial in CRD, RBD and LSD.

- 4. Analysis of 3 2 factorial in CRD and RBD.
- 5. Analysis of completely confounded two level factorial design in 2 blocks.
- 6. Analysis of completely confounded two level factorial design in 4 blocks.
- 7. Analysis of partially confounded two level factorial design.