**CB[1] – Enrichment – Latin Square Design**

Part I – Individual Quiz (Before Class)

Part II – Group Quiz (During Class)

1. What are the structural features of a Latin Square Design (2 pts)?
   1. Two nuisance factors and one factor of interest.
   2. Number of levels is the same for all factors.
   3. Every pair of factors is crossed, every interactions occurs once.
2. What are common situations where a Latin Square Design is useful (2 pts)?
   1. Subjects exhibit a lot of variability –
   2. The order of the conditions has a systematic effect –
   3. The factor of interest is experimental -
3. How do you calculate the Estimated effect and degrees of freedom for the Row factor for a Latin Square Design (2 pts)?

Factor Estimated Effect DF

Benchmark Grand Average 1

Rows RowAvg – GrAvg #rows – 1

Columns ColAvg – GrAvg (#col-1) = (#row-1)

Treatments TrAvg – GrAvg (#treats-1) = (#row-1)

Residual Error Obs – Fit (#row-1) X (#row – 2)

**End of Part I**

1. Were you in class on time (2 pts)?

Yes

1. Get an ANOVA table using for the Fuel Efficiencies data and evaluate the results. Also, check the requirements of the residuals being normally distributed as well as the variances being equal. (8 pts).



