**Case 5: Total 100 points**

Dataset: Enriched Smartpartyware dataset.

**Deliverables – 2 pages of Executive Summary and standard printouts similar to Case1**

Conditions to build the Model

1. Build the Best Classification Model using JMP on the following conditions,

You have to build at least two different models using two different classification methods; you can use either the best model among the models you built or one of the Ensemble Model as the final model.

Y = Success

X = At most 7 variables including at least one enriched variable

(If you are using Decision Tree, at most 10 splits – including at least one enriched variable used for splitting)

You can use interaction or squared or transformed or business variables.

|  |  |
| --- | --- |
| \*\* If you Build different | |
| types of Model then will you | |
| not lose points |  |

Cutoff Probability for mailing = any value between 0.12 to 0.25

**Make sure you address the following in your Executive Summary.**

* 1. Explain your model from business point of view.

Explain the coefficients of variables (or the splits) and state whether they make business sense? (Hint: if possible user profiler or tree table to explain)

* 1. Is our model useful? If possible, provide evidence to support your answer and where appropriate use a significance level of 5%.
  2. Interpret the summary values of R2 and how many variables are there in the model?
  3. Attach important parts of JMP printout
  4. Create the confusion matrix for the training & testing data set. (cutoff Prob. Refer to the above condition)
  5. What is the expected profit based on the confusion matrix for training and testing data sets (use the given profit calculator Excel Sheet).

Note: Your Score will be based on the grading rubric and profit you make and the model built from a business point of view.