## STAT3015/STAT4030/STAT7030 Generalised Linear Models

### Marking Sheet for Assignment 2 for 2016

**Question 1** **Marks**

(a) Underlying population model and *R* model object (**1** mark)
Description of variables, constraints and assumptions (**1** mark)
(**0.5** mark) (**2**) ___

(b) Good, well-labelled plot of (standardised) residuals vs linear predictors (**1** mark)
Normal quantile plot (**1** mark)
Cook's D plot or other relevant outlier plot (**1** mark)
Identification of problem observations (**1** mark) (**4**) ___

(c) Analysis of deviance table (**1** mark)
Correctly identifying the CV and alternative estimates of dispersion (**1** mark)
Goodness-of-fit hypothesis test (correctly scaled) with conclusion (**1** mark) (**3**) ___

(d) Two correctly scaled drop-in-deviance tests (**2** marks)
Table of coefficients with discussion (**1** mark) (**3**) ___

(e) Producing the required predictions (**2** marks)
Good discussion and conclusions (**2** marks) (**4**) ___

**Q1 total (out of 16)** ___

**Question 2** **Marks**

(a) Correct choice of model and *R* model object (**1** mark)
Relevant analysis of deviance tables and discussion (**1** mark) (**2**) ___

(b) Good, well-labelled plot of (standardised) residuals vs linear predictors (**1** mark)
Normal quantile plot (**1** mark)
Cook's D plot or other relevant outlier plot (**1** mark)
Identification of problem observations and discussion (**1** mark) (**4**) ___

(c) Analysis of deviance table (**1** mark)
Correctly identifying the assumed and alternative estimates of dispersion (**1** mark)
Goodness-of-fit hypothesis test (correctly scaled) with conclusion (**1** mark) (**3**) ___

(d) Identification and discussion of the key drop-in-deviance test (**2** marks)
Table of coefficients with discussion (**1** mark) (**3**) ___

(e) Discussion of the issues in fitting binary response models (**2** marks)
A reasonable attempt at presenting a relevant model (**2** marks) (**4**) ___

**Q2 total (out of 16)** ___

**Student ID (1) _____** **Total marks (out of 32) ___**

**Student ID (2) _____ (if the assignment was done in a group of two)**

Model solutions are available on Wattle, which you should compare with your solutions. Also have a good look at the R command file for this assignment which includes extensive comments. Please see Yang Yang or Ian if you have questions about the assignment or the solutions. Please approach Yang Yang in the first instance with any query re your marks (as he did the marking).

Please note that if you do wish to appeal your mark; you will need to send Ian an e-mail detailing the problem and also provide him with your marked assignment and the copy (electronic or paper) that you were supposed to keep when you submitted the assignment.

If you do request a re-mark, your entire assignment will be re-marked by Ian (not just the part you are querying) and your final mark for this assignment may go either up or down as a result of this re-mark.