**Appendix C: Marking Scheme for Data Mining Assignment – worth 70% of module mark**

**Name ………………………………………….**

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| |  | | --- | |  | | **0-44%**  **Fail** | **45-49%**  **Marginal Fail** | **50-59%**  **Pass** | **60-69%**  **Merit** | **70-79%**  **Distinction** | **80%+**  **Distinction** |
| **Practical Data**  **Mining:**  **development of**  **models**    ***(Weighting: 55%)*** | Data analyses of very little value. | Weak analyses, with  substantial  limitations.  Confused and/or contradictory use of statistical techniques.  Some effort  evident but not to pass standard required. | Correct directed data mining techniques used but some confusion with justification.  Satisfactory  amount of  data analyses conducted but  insufficient development of approaches such as: investigating outliers, data replacement, data transform-ation and variable selection. | Good work. Sensible data analyses and generally correct interpretation. Investigation of outliers, data replacement, data transformation and variable selection methods are employed appropriately.  Majority of the requirements are satisfied for each of the directed data mining techniques. | Very good work. As 60-69% grade but more rigorous analyses and interpretation has been conducted.  All of the requirements are satisfied | Excellent work.  Thorough and  complete  data analyses.  As for 70-79%  grade but to a  more professional  standard. |
| **Appropriate Application of “research” node or technique identified from Activity 3 of assessed discussion board (weighted 5%)** | No expansion of knowledge over and above the nodes and techniques described in the lab sessions | At least one research node or technique attempted but weak justification of appropriateness and or weak implementation, limitations and assessment of effectiveness not discussed | Research node justification provided but reasoning confusing. Insufficient exploration only default settings used.  Comparison with taught techniques made if appropriate. | Good justification provided of the “research node” or technique .  Demonstrated exploration of node from the default parameters to demonstrate improvement in model performance or a demonstration of limitations | Very good justification provided of the “research node” or technique. At least two good references to academic literature provided.  Demonstrated exploration of node parameters to demonstrate improvement in model performance or demonstration of limitations | Very good justification provided of the “research node” or technique. At least two good references to academic literature provided.  Demonstrated exploration of node parameters to demonstrate improvement in model performance or demonstration of limitations. Explanation of any unexpected findings. |
| **Conclusions,**  **Evaluation,**  **critical appraisal of**  **data analyses**  **conducted, new**  **ideas etc.**  ***(Weighting: 20%)*** | No/minimal critique and/or no meaningful conclusions and/or no meaningful evaluation. | Minimal attempt with little evaluation. Poor conclusions. | Satisfactory attempt. Report includes some evaluation and sensible conclusions but lacks depth in the critical appraisal. | Good critical appraisal of data analyses conducted. Sensible evaluation and conclusions that address most of the requirements, Good ideas evident in the report. | Very good critical appraisal of data analyses conducted - follows logically from body of report and contains original ideas. | Excellent critical  appraisal – a clear  understanding of  the impact on  further flows of the  data mining cycle is evident in the evident. As  70-79% grade  but to a more  professional  standard. |
| **Management and**  **overall technical**  **quality of report.**    ***(Weighting: 20%)*** | Report has no clear structure and poor technical quality. | Weakly structured report and presentation. Overall technical quality not to pass standard required. | Satisfactory report with appropriate structure and presentation.  Some report management. | Good concise report. Well written, good structure and presentation. Self-management of report. Evidence of CVD research conducted to complement the results of the data analyses. | Very good concise report.  Well written. Excellent structure and presentation. Self-management of report. Further research into CVD is naturally integrated in the report. | Professional  report that  could be  submitted to  client. |