



ESS 104-3 Quantitative Reasoning

**Practical Examination**

Time allocation : Two (02) hours

Marks allocation : 100 marks

Computer facilities with Minitab software will be provided

A certain newspaper has conducted an opinion poll to choose the most popular school cricketer. One's favourite cricketer's name should be entered in the coupon provided in the newspapers and it should be sent to the newspaper office. Information of 250 cricketers who obtained votes in this competition is stored in the MINITAB work sheet named "cricket.mtb". The column descriptions are as follows.

Column	Variable	Description
C1	Cricketer ID	Identification number of the cricketer
C2	District	District which the cricketer's school belongs to
C3	School type	Type of school - grade 1/grade 2
C4	Division	Division of the cricketer's team : A, B, C
C5	Matches	Number of matches played
C6	Runs	Total number of runs obtained
C7	Wickets	Total number of wickets obtained
C8	Students	Total number of students in the school which the cricketer belongs to
C9	Votes	Number of votes received

The schools mentioned here are graded as grade 1 or grade 2 according to their standard. Cricket teams belong to division A, B or C according to their performance. Here, division A teams are the ones with best performance record of the three. Consider that the cricketer's popularity is represented by the number of votes obtained. **You are invited to write a report to a magazine of your school on the factors that affect the popularity of school cricketers.** Your report should consist of statistical analysis of the information that has been collected. Obtain necessary measures and tables for the purpose. Interpret each of your results. Obtain the graphs/plots that are necessary for the report and interpret each of them. Comment on the correlation between the performance and any quantitative variables that you find to affect the performance of students. Compare the strength of relationships. Comment on the correlation between the popularity and any two quantitative variables that you find to affect the popularity of cricketers. Compare the strength of relationships.