

PROBABILISTIC MODELS TO UNDERSTAND AND ANALYZE STUDENT PERFORMANCE IN POST GRADUATE ENTRANCE EXAMINATIONS - A CASE STUDY

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ABSTRACT

Competitive examinations occur at all the levels of education in the current scenario-more important at the Graduate and Post Graduate levels. The intense level of competition at this stage makes it difficult for both the candidate to answer the papers and the person to set the paper. While the standard of the questions have to be maintained throughout the examination paper it also has to be seen that there is a right balance between the severity of the questions and the strength of the candidates to answer. This balance is difficult to achieve. This paper discusses some probabilistic and statistical techniques to analyze the results of competitive exams at the post graduate level-and thereby evolve a predictive model for the future use in setting up the question papers. Data Mining softwares like Rapid Miner, Weka and R and statistical packages like SPSS can be employed suitably in order to do this kind of an analysis.

KEYWORDS: Data Mining, Probability, Rasch Model, Statistical Methods