**ASSESSMENT AND INTERNAL VERIFICATION FRONT SHEET (Individual Criteria)**

**(Note : This version is to be used only for assignments uploaded via Classter)**

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| Course  Title | | BSc. (Hons) Software DevelopmentBSc. (Hons) Multimedia Software Development | | | Lecturer Name & Surname | Kassandra CallejaAndrew Cortis | | |
| Unit Number & Title | | | [**ITSFT-506-1608 - Data Structures and Algorithms**](https://moodle.mcast.edu.mt/course/view.php?id=241) | | | | | |
| Assignment Number, Title / Type | | | 1 - DSA Home Assignment 1 (Long) | | | | | |
| Date Set | | | **07/04/2020** | Deadline Date | **29/05/2020** | | | |
| Student Name | Reuben Xuereb | | | ID Number | 114900L | | Class / Group | MSD 6.1B |

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| Assessment Criteria | Maximum Mark |
| *Criteria :* *KU3 - Explain the process known as the Fisher-Yates Shuffle.* | 5 |
| *Criteria : KU4 - Show analysis of estimate running times and compare the implementation of efficient algorithms with inefficient algorithms.* | 5 |
| *Criteria : AA3 - Produce an algorithm for Graphs or Tree structures. Also compute the best, worst and average case times.* | 7 |
| *Criteria : AA5 - Produce an algorithm using the queue data structure giving priority to data using the Heap or HeapSort.* | 7 |
| *Criteria : SE1 - Evaluate the applications of pseudo-random number generator.* | 10 |
| *Criteria : SE2 - Create the sorting algorithms for Merge-Sort, Quick-Sort and Bucket Sort. Predict the rate of processing and evaluate and justify application for each algorithm.* | 10 |
| *Criteria : SE3 - Evaluate the features algorithms in relation to their correctness, proof and intractability.* | 10 |
| *Criteria :* *KU3 - Explain the process known as the Fisher-Yates Shuffle.* | 5 |
| Total Mark | **54** |

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| **Notes to Students:** |
| * This assignment brief has been approved and released by the Internal Verifier through Classter. * Assessment marks and feedback by the lecturer will be available online via Classter (<Http://mcast.classter.com>) following release by the Internal Verifier * Students submitting their assignment on Moodle/Unicheck will be requested to confirm online the following statements:   **Student’s declaration prior to handing-in of assignment**   * I certify that the work submitted for this assignment is my own and that I have read and understood the respective Plagiarism Policy   **Student’s declaration on assessment special arrangements**   * I certify that adequate support was given to me during the assignment through the Institute and/or the Inclusive Education Unit. * I declare that I refused the special support offered by the Institute. |