Section 4 : Marking Criteria Example

Criteria / Grade	*0-34(Fail)*	*35-49 (Narrow Fail)*	• *(50-59%)pass*	• *(60-69%) Merit*	• *(70-100%)Distinction*
Coding Standard (10%)	No code or very little submitted, not following PEP8 guidelines, delivering no functionality or very limited.	The code fails to follow PEP8 style guidelines, including line length, comments, identifier naming conventions, and docstrings, and it lacks error checking and exception handling.	The code follows some PEP8 style guidelines, such as line length, comments, identifier naming conventions, and docstrings, but may still lack error checking and exception handling.	The code follows PEP8 style guidelines, including line length, comments, identifier naming conventions, and docstrings, and includes basic error checking but may lack exception handling.	The code follows PEP8 style guidelines, including line length, comments, identifier naming conventions, and docstrings, and includes basic error checking and exception handling.
Choice of Algorithm and evaluation methodology (30%)	• No choice of algorithm, or not optimising algorithm provided • No or very rough evaluations made, a methodology has not been followed not at all or not appropriately.	No evidence is provided to show that the algorithm is evolving better solutions, which may result from: • Inappropriate design choices • Lack of testing during implementation • Only conducting a single run of algorithms that incorporate randomness • Considering only one problem instance • Failing to use appropriate statistical tests • Not stating or justifying the choice of	• Although the algorithms have been successfully implemented, there is insufficient justification for the design choices regarding the methods used. • For the single-member search algorithm, there is a need to explain the choices related to the candidate solution adjustment method, the neighborhood structure, and how exploration versus exploitation is balanced. • For the evolutionary	• The design choices are explained, and successful implementation is demonstrated. However, there may be minimal explanation of why certain design choices were made, or some parts of the implementation could lack depth. • You must demonstrate scalability by testing their algorithms on varying problem sizes (e.g., 10,20 and 30 cities). you should compare local search and evolutionary algorithms in terms of efficiency, solution quality, and	• A more in-depth explanation of why specific design choices were made. The student also shows evidence of creative problem-solving or improvements to the algorithms that go beyond basic implementation. • You must demonstrate scalability by testing their algorithms on varying problem sizes (e.g., 10,20,30,40 and 50 cities). you should compare local search and evolutionary algorithms in terms of efficiency, solution quality, and computational complexity, highlighting how the algorithms adapt to larger instances. • Extensive hyper-parameter tuning is demonstrated for

		performance metric.	algorithm, you should justify the selection of recombination and mutation operators, population size, and mutation rate. Discuss how these parameters influence the performance of each algorithm.	computational complexity, highlighting how the algorithms adapt to larger instances. • There is little to no hyper-parameter tuning for most algorithms, or it's only partially explored. • The algorithms are compared using a few basic performance metrics, but these metrics might be limited or insufficiently explained.	both algorithms, with detailed justifications for the choices made. • A wide range of comprehensive performance metrics is employed, including computational efficiency, scalability, and robustness. The results are thoroughly analysed, showing clear and well-argued performance advantages for each algorithm under different conditions.
Analysis of your results (20%)	• No or very little analysis attempted. No or very little recommendation	• Little or no analysis. Recommendation made without consideration of deployment context.	• Limited analysis of results with weak justification for conclusions. Few or no references to previous research findings.	• Good analysis of results demonstrating insight into findings with some reference to related research.	• Coherent and insightful argued summary of findings including links/references to previous research.
Video (20%)	• The technical problem is not clearly explained, and its relevance is unclear. The findings are difficult to follow and lack proper context	• The problem and findings are described in a basic manner, relying primarily on text.	• Limited explanation on findings and mostly text-heavy and occasionally uses overly technical language.	• Good description and well-defined methodology evaluation and the analysis of the results.	• Excellent description of the technical problem, well-defined justification on the solution, and discussed strengths and weaknesses of the searching algorithm.
Legal/Ethical Concerns (10%)	• Not covered at all	• Not covered properly or did not describe any proper context.	• Statement of whether there are licensing conditions for any	• Discuss licensing conditions for any software/data used with justification for	• Discuss licensing conditions for any resources used and the legal implications of use without appropriate rights.

			software/data used.	why they allow use in this assignment.	
Professionalism on Document writing (10%)	• The document is poorly documented, lacking proper references, and contains instances of plagiarism and spelling mistakes.	• Failure to use spelling or grammar checks. Little or no use of figures to illustrate results or concepts. • Little or no referencing.	• No significant spelling or grammar checks, and appropriate use of formatting tools. • Some use of figures. The language was occasionally imprecise or unscientific. • References to previous work but typically to webpages/blogs.	• Well-presented document with consistent formatting, no spelling or grammatical errors, and good use of appropriate technical language. All figures and tables have self-contained captions. • Referencing is done using a recognized style, e.g., Harvard, but not all to peer-reviewed work/books.	• An exceptionally well-presented report inappropriate reflective language with good use of style formatting to increase readability. • All figures and referencing done correctly. • References to original research that clearly discuss findings/content are used to justify assertions where appropriate.