

1) N-Queens Problem Solver (for different sizes – n should be selected by the user) using the Backtracking Search Algorithm, a Best-First Search, a Hill-Climbing Search, AND a Cultural Algorithm.



Team Information (typed, not handwritten, except for the attendance signature):

ID [Ordered by ID]	Full Name [In Arabic]	Attendance [Handwritten Signature]	Final Grade
1 20225120	احمد محمد عمر محمد		
2 20225127	إسماعيل اشرف إسماعيل حسن		
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5 20225138	حبيبة محمود مصطفى زكي		
6 20225155	رولا عصام الدين حسن		

Item	Mark	Team Members					
		1	2	3	4	5	6
Report (including Problem Definition, Literature Review, References, Relevant Diagrams)	3						
Representation of the States, Actions, and the State Space	3						
Application of Backtracking Algorithm	3						
Design of Heuristic Functions 1 & 2	3						
Application of the Best First Algorithm	4						
Application of the Hill-Climbing Search Algorithm	3						
Application of Cultural Algorithm (including a plot of CA performance across the generations, the belief space, and the design of the fitness function)	5						
Discussion & Analysis of Results – including the effects of the different heuristic functions, parents' selection approaches, crossover approaches, mutation approaches, population sizes, belief-space parameters, and survivors' selection approaches & elitism.	4						
Implementation	7						
GUI (deduct 4 marks if no proper design for inputs or outputs)							
If another algorithm is applied, deduct 6 marks							
Deduct 50% to 100% of a Student's grade if (s)he didn't participate							
Total	35						