## Question 1

	No attempt or answer is incorrect	Poor	Satisfactory	Good	Excellent
1.1 MDP components	(0 marks) No attempt or answer is incorrect.	(2.5 marks) Only one of the 4 components or their representation in the code is correct.	(5 marks) Two or three of the 4 components or their representation in the code are incorrect.	(7.5 marks) Only one of the 4 components or their representation in the code is incorrect.	(10 marks) All 4 components are correctly defined. Representation of these components in code are correctly identified.
1.2 Discount factor	(0 marks) No attempt or answer is incorrect.		(1.25 marks) Some errors in understanding, or important aspects have been missed.		(2.5 marks) Correctly and appropriately described.
1.3 Dimensions of complexity	(0 marks) Less than 3 of the dimensions are correct, or the question has not been attempted.		(1.25 marks) At least 3 dimensions are correct.		(2.5 marks) All dimensions are correct.
Presentation	-2 if presentation is overly poor.				

Question 2					
	No attempt or answer is incorrect	Poor	Satisfactory	Good	Excellent
2.1 Description of implementations	(0 marks) Neither implementation has been sufficiently described, or the question has not been attempted.		(1 mark) The implementation of one of VI and PI has not been described or some important details are missing or more than 2 sentences are used.		(2 marks) Important details about the implementation of VI and PI have been described within 2 sentences. If PI has not been implemented, this has been specified.
2.2 VI and PI comparison	(0 marks) Question has not been attempted, or the answer is incorrect.	(1.5 marks) Something has been presented which addresses aspects of the question, but does not meet the criteria for 3 marks.	(3 marks) At least 3 of the requested values are present and reasonable.	(4.5 marks) All 6 requested values (from 3 test cases each comparing two interesting approaches) are present and reasonable.	(6 marks) All 6 requested values (from 3 test cases each using VI and PI) are present and reasonable.
2.3 Discussion of differences	(0 marks) Question has not been attempted, or answer is incorrect.	(1.75 marks) Some discussion is provided, but it does not justify results or there are issues in understanding.	(3.5 marks) A discussion is provided, which makes a reasonable attempt to justify results. A satisfactory understanding of VI or PI is shown.	(5.25 marks) An interesting and reasonable discussion is provided comparing the two approaches tried (may not be VI vs. PI). A strong understanding of at least one of VI or PI is demonstrated.	(7 marks) An interesting and reasonable discussion is provided, justifying why results either make sense or do not make sense. A strong understanding of the VI and PI algorithms is demonstrated.
Presentation	-2 if presentation is overly poor.				

## Question 3

	No attempt or answer is incorrect	Satisfactory	Excellent		
3.1 Hypothesis	(0 marks) Question has not been attempted, or answer is incorrect.	(2.5 marks) Expectation for how optimal path changes demonstrates small issues in understanding <b>or</b> is not justified by any discussion of the algorithms.	(5 marks) Expectation for how optimal path changes is reasonable and correctly justified by facts about the algorithms.		
3.2 Experiment	<ul> <li>(0 marks) Question has not been attempted, answer is incorrect, or more than one of the following is true:</li> <li>Factors chosen are not reasonable to facilitate testing the hypothesis</li> <li>The optimal policies (and how they change over the factors) are not sufficiently described</li> <li>Reasonable discussion is not provided.</li> </ul>	(2.5 marks) Factors chosen are not reasonable to facilitate testing the hypothesis <b>or</b> the optimal policies (and how they change over the factors) are not sufficiently described <b>or</b> reasonable discussion is not provided.	(5 marks) Factors have been reasonably chosen to test the hypothesis regarding the optimal policy change, and the optimal policies found have been sufficiently described (including how they change over the factors chosen). Reasonable discussion is provided as to why these results do or do not align with the hypothesis (can be a brief sentence if hypothesis and results align).  Note: results don't necessarily need to align with the hypothesis for full marks.		
Presentation	-2 if presentation is overly poor.				