| Task | | | | Expected response | Additional guidance | Max Marks | |
|---|---|---|---|---|---|---|---|
| **2.** | (c) | (i) | *Input from file to array of records* | Module with correct parameter passed or returned to read data from file to array of records | | 1 | *Implementation (13)* |
| | | | | Correctly assign data from file to array of records | | 1 | |
| | | | | Member data stored in a record structure | | 1 | |
| | | | *Find Furthest Distance* | Module with correct parameter passed to return furthest distance walked | | 1 | |
| | | | | Find max algorithm.<br><br>Award 3 marks for:<br>• Initialise furthest<br>• Correct assignment of furthest within loop<br>• Matches design - initialise to first index in array - loop from second index in array | | 3 | |
| | | | *Display Furthest* | Module with correct parameter passed to display furthest distance walked | | 1 | |
| | | | *Linear Search with File Output* | Module with correct parameters | | 1 | |
| | | | | Award 2 marks for:<br><br>selection – record distance more than 70% of furthest walk<br><br>write forename(s) and surname(s) to file | | 2 | |
| | | | | Program Code is Maintainable (must have meaningful variable names and regular internal commentary) | | 1 | |
| | | | | Matches top level design: four sub programs with furthest distance as a function | | 1 | |

| Task | Expected response | Additional guidance | Max Marks | |
|---|---|---|---|---|
| 2. (c) (ii) Marathon Task | Correct use of function to truncate | Round function does not truncate | 1 | Implementation (2) |
| | Message, forename(s), surname(s) and number of whole marathons written to file | | 1 | |
| **Steven Johnston should be 0** | | | | |
| (d) | One mark each for:<br>• Using variable names for furthest distance and member's record structure from candidate's code AND first value of max distance and furthest assigned to 189.4<br>• Table shows correct changing state of member distance and furthest | Where value of furthest does not change, it can be omitted from the trace | 2 | Testing (2) |
| (e) | Fitness for Purpose<br><br>Award 1 mark any two bullets from:<br>• Find/display furthest distance walked<br>• Find/display/write members who walked more than 70% of the furthest distance<br>• Read forename, surname, distance from file<br>• Find number of marathons OR write names and number of marathons to file<br><br>Award 1 mark linking readability to maintainability eg internal commentary to explain code to another programmer<br><br>Award 1 mark linking modularity to maintainability eg sub procedures used (can be edited independently) | Comments on not fit for purpose should match functional requirements<br><br><br><br>Must go beyond a list of readability criteria | 3 | Evaluation (3) |