

## PRF – Fundamentals of Programming Coursework 1 – The Markscheme

Name:

Marker:

Stage 1:	/8
Stage 2:	/6
Stage 3:	/3
Stage 4:	/3
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Total:	/20

### Stage 1 [8 marks]

Run the program. Check that it correctly finds a winning program and correctly detects a dead heat. Check that votes less than zero are rejected, as are votes that are not integers (don't check with strings).

One mark for each of:

- Correctly finding a winning program
- Correctly determining percentages
- Use of function for percentage *or* validation
- Correctly detecting a dead heat
- Rejecting negative votes
- Neat alignment in final table
- Reasonable commenting in code (including header block)
- Sensible identifiers for variables

## Stage 2 [6 marks]

The program should now display the names of the programmes involved in any dead heat, so check that. It should now run for more than one area, and should report an overall result.

One mark for each of:

- Running for the correct number of times
- Exiting or re-prompting if the number of times is  $\leq 0$
- Correctly displaying the programmes in a dead heat
- Correctly displaying the overall most popular programme
- Handling the possibility that the overall result is a tie (either by printing this or by printing nothing)
- Using functions for the table so that no code is duplicated

## Stage 3 [3 marks]

A bar chart should now be added, with one # for each complete 10 votes. Each bar should be preceded with a three letter code.

One mark for each of:

- Neatly formatted bar chart provided
- Correct length for bars
- Bar chart implemented as a function

## Stage 4 [3 marks]

This should be the same as the third stage except that all percentages should now be neatly rounded, and that the program should also report which areas each programme was the most popular in.

One mark for each of:

- Printing to two decimal places (including zeros!)
- Displaying each programme's winning areas
- Sensible use of *modules* to achieve this