Expected Questions

1 **(a)** All variables, constants and other identifiers must have meaningful names.

(i) State **one** variable and **one** array you used for **Task 1**. State the data types and purpose of these data structures.

Variable: .....

Data Type: .....

Purpose: .....

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Array: .....

Data Type: .....

Purpose: .....

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[4]

(ii) Describe, with the aid of a snippet of your solution for **Task 2**, how your code checks whether the student ID being entered has already been used.

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Expected Questions

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[4]

(b) Explain, with an example, how your code for **Task 3** calculates the percentage of votes for each candidate. Use comments within your snippet to explain the use of each data structure (for example, the array used to store the votes).

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Expected Questions

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[6]

Expected Questions

(c) The train company requires you to use the following identifiers in your code for their specific data structure(s):

`VoterIDs`: array used to store the voter IDs.

`CandidateVotes`: array used to store the total votes received by each candidate.

`CandidateNames`: array used to store the names of all the candidates of the elections.

Write a pseudocode algorithm for **Task 2**. Implement the use of these identifiers to their relevant corresponding data structures.

Expected Questions

[7]

(d) Write an algorithm for **Task 1**, using **either** pseudocode, programming statements **or** a flowchart.

Expected Questions

Expected Questions

[8]

(e) Explain the changes necessary to the solution for **Task 3** in order to allow the candidate with the second highest vote of the election to be given the title of "Deputy Representative".

[4]