Name: Class: Mark:

1. Algorithms are used to create, display and store images, search data for a particular item, control robots and millions of other applications.

State what is meant by the term **algorithm**. [1]

2. (a) Explain what is meant by the term **abstraction**. [2]

(b) An online game allows players to race cars. They can play against other people or computer players.

(i) In this context, explain what is meant by **decomposition**. [2]

(ii) One subtask in the game is to ‘refuel a car’.

Explain why ‘refuel a car’ is an abstraction. [2]

(iii) Draw a structure diagram to show how the online racing game could be decomposed. [4]

|  |
| --- |
|  |

3. Satnav systems are used in cars to show a driver the streets that they are driving on.

Describe how abstraction is used by the designers of such devices when creating   
their maps. [4]

[Total 15 Marks]