

6 A computer game is programmed to use artificial intelligence (AI) to create the movements and actions of the computer-controlled characters in the game.

(a) Describe what is meant by AI.

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..... [3]

(b) Explain how the AI can be used to improve the movements and actions of the computer-controlled characters.

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(c) The computer game is programmed using a high-level language.

Explain **one** difference between a high-level language and a low-level language.

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..... [2]

(d) The programmer uses translators to translate the high-level language source code into machine code.

Identify the name of the translator that would be used for each of the statements. Each name may be used more than once.

(i) Translates and executes the source code one line at a time.

..... [1]

(ii) Translates the source code and will not execute it if errors are found. It instead produces a full report of the errors in the source code.

..... [1]

(iii) Translates the source code and produces an executable file.

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(iv) Stops execution of the machine code where an error is found and will resume execution of the machine code once the error is fixed.

..... [1]