

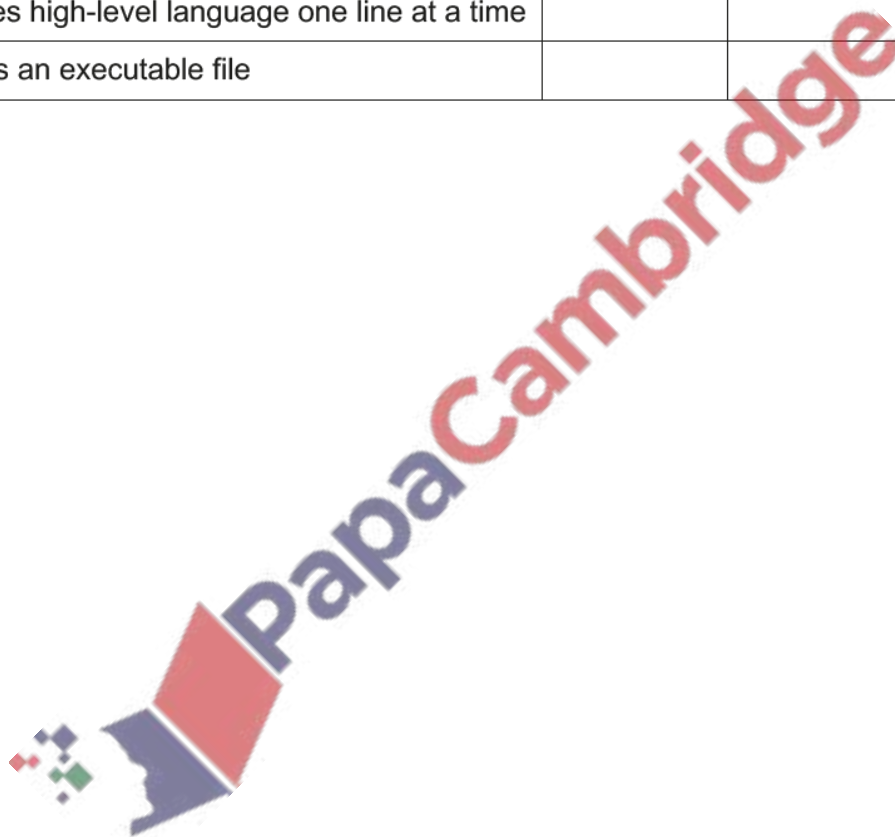
**1. Mar/2020/Paper\_12/No.4**

Assemblers, compilers and interpreters are types of translators.

Tick (✓) to show which statements apply to each translator. Each statement may apply to more than one type of translator.

<b>Statement</b>	<b>Assembler (✓)</b>	<b>Compiler (✓)</b>	<b>Interpreter (✓)</b>
Translates low-level language to machine code			
Translates high-level language to machine code			
Produces error messages			
Translates high-level language one line at a time			
Produces an executable file			

[5]



Programs can be written in a low-level language.

(a) Identify **three** features of a low-level language.

Feature 1 .....

Feature 2 .....

Feature 3 ..... [3]

(b) Give **two** examples of a low-level language.

Example 1 .....

Example 2 ..... [2]

(c) Give **one** drawback of writing programs in a low-level language, instead of a high-level language.

.....

..... [1]

(d) A low-level language needs to be converted to binary before it can be processed by a computer.

(i) Give the **8-bit binary** value of the two denary values:

180 .....

201 ..... [2]

Working space

.....

.....

.....

.....

(ii) Give the **12-bit binary** value of the denary value **250**.

..... [1]

Working space

.....  
.....  
.....  
.....

(iii) Binary can be represented as hexadecimal to make it easier to read.

Give the **hexadecimal** values of the 8-bit binary values:

10010011 .....

00011101 .....

[2]

