

**Paper reference 4CP0/01**  
**Pearson Edexcel**  
**International GCSE (9 – 1)**

**Computer Science**  
**PAPER 1: Principles of Computer Science**

**Friday 26 May 2023 – Afternoon**  
**Time: 2 hours**

**Data Book**

**In the boxes below, write your name,  
centre number and candidate number.**

<b>Surname</b>										
<b>Other names</b>										
<b>Centre Number</b>										
<b>Candidate Number</b>										

## **INSTRUCTIONS**

**There may be spare copies of some diagrams in case you need them.**

**THIS DATA BOOK MUST BE RETURNED  
WITH THE QUESTION PAPER  
AT THE END OF THE EXAMINATION.**

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## Spare copies

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Question 2 (a)  
Table

Denary	Hexadecimal
8	
12	



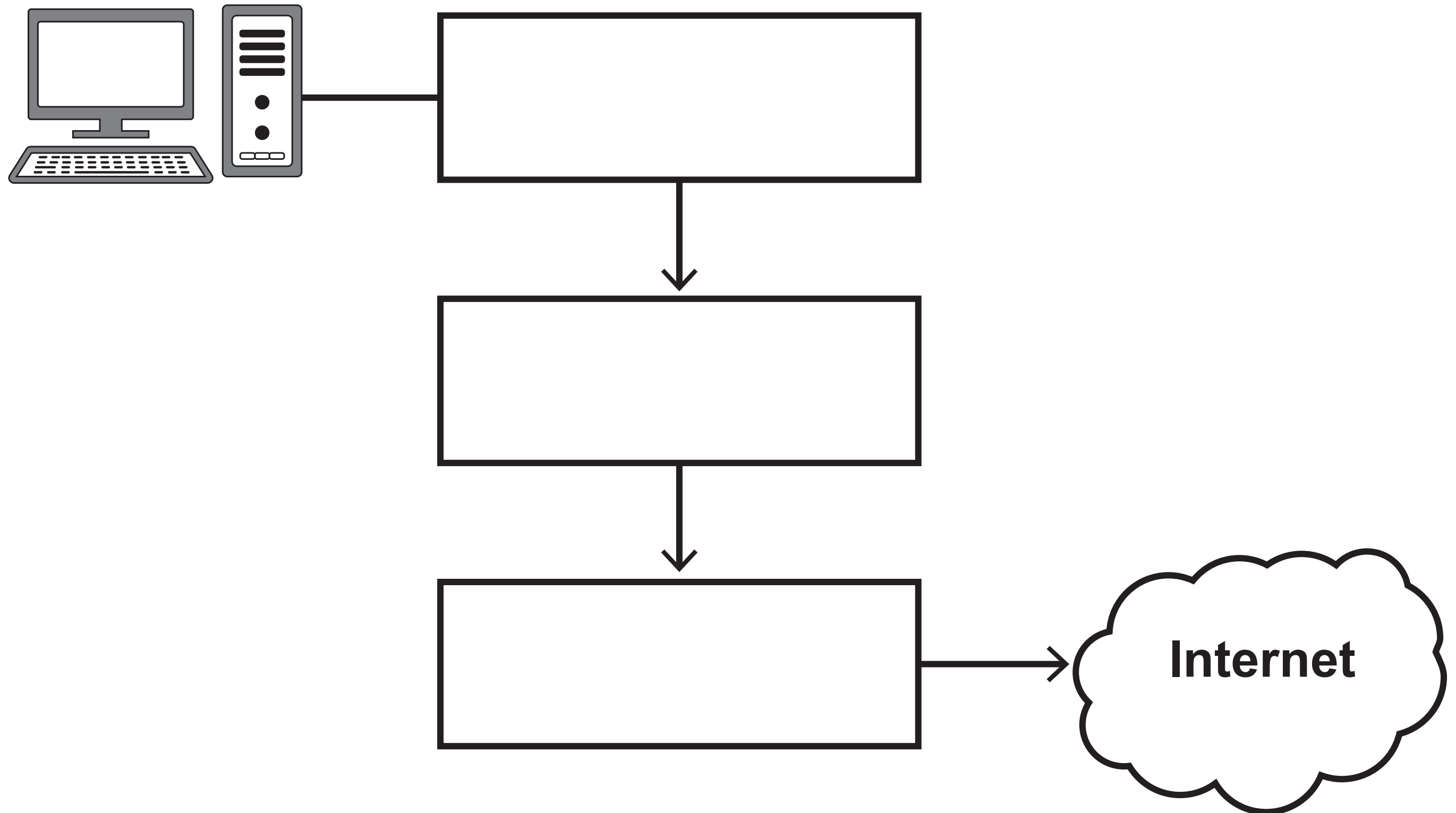
**Question 3 (f)**  
**Table**

<b>TASK</b>	<b>TRANSLATOR</b>
<b>A guessing game that can be used on different computing platforms</b>	
<b>A screen driver for a new smartphone</b>	
<b>A new version of a spreadsheet program for sale next year</b>	
<b>Control software for an embedded system inside a new washing machine</b>	

Question 4 (b)  
Table

TYPE	EXAMPLE	NUMBER OF BITS
IPv4	192.169.0.3	
IPv6	1050:a500:00c0:0440:0006:0300:700d:436f	

## Question 4 (d) Diagram





**Question 5 (a)**  
**Table**

<b>REQUIREMENT</b>	<b>EXAMPLE</b>
<b>Input</b>	
<b>Process</b>	<b>Calculate the path the bee will move along to its new position</b>
<b>Output</b>	

**Question 5 (b) (i)**  
**Diagram**

**Speaker**

**CPU**

**Mouse**

**USB  
device**

Question 5 (d) (i)  
Table

A	B	C	A AND C	(A AND C) OR B
0	0	0	0	0
0	0	1		
0	1	0		
0	1	1		
1	0	0		
1	0	1		
1	1	0		
1	1	1	1	1

**Question 5 (d) (ii)**

**Blank space to construct a logic statement**

## Question 6 (b)

## Figure 1

```
1  SEND ("Enter a number: ") TO DISPLAY
2  RECEIVE inNum FROM (INTEGER) KEYBOARD
3  IF ((inNum = 1) OR (inNum = 2)) THEN
4      IF (inNum = 1) THEN
5          SEND ("First") TO DISPLAY
6      ELSE
7          IF (inNum = 2) THEN
8              SEND ("Second") TO DISPLAY
9          END IF
10     END IF
11 ELSE
12     SEND ("Invalid input") TO DISPLAY
13 END IF
```

**Question 6 (c)**  
**Figure 2**

```
1  SET oldScores TO [ 10, 20, 30, 40, 50]
2  SET newScores TO [0, 0, 0, 0, ]
3  SET newIndex TO 0
4
5  FOR oldIndex FROM (LENGTH (oldScores) - 1) TO 0 STEP -1 DO
6      SET newScores[newIndex] TO oldScores[oldIndex]
7      SET newIndex TO newIndex + 1
8  END FOR
```

Question 2 (a)  
Table

Denary	Hexadecimal
8	
12	





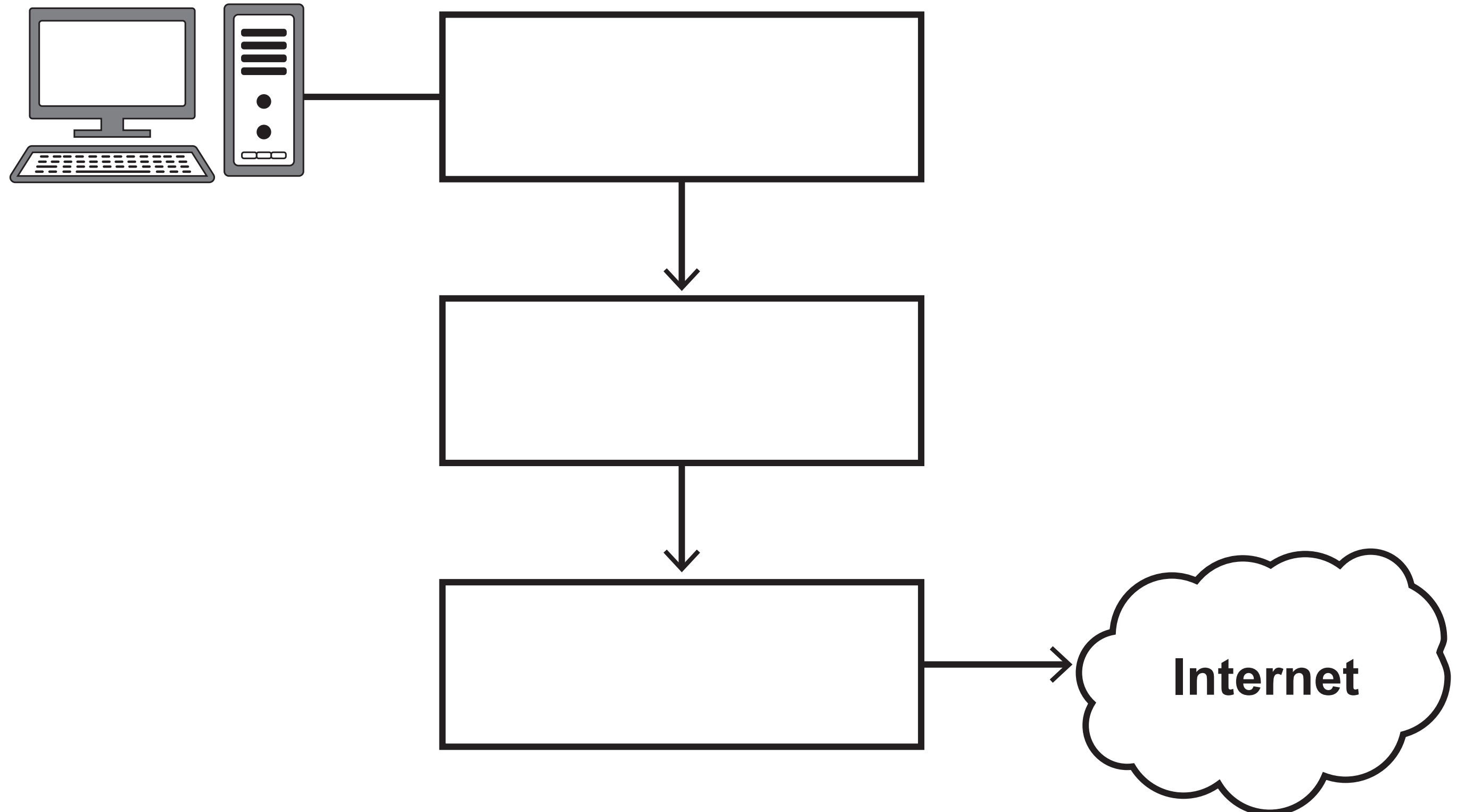
**Question 3 (f)**  
**Table**

<b>TASK</b>	<b>TRANSLATOR</b>
<b>A guessing game that can be used on different computing platforms</b>	
<b>A screen driver for a new smartphone</b>	
<b>A new version of a spreadsheet program for sale next year</b>	
<b>Control software for an embedded system inside a new washing machine</b>	

**Question 4 (b)**  
**Table**

<b>TYPE</b>	<b>EXAMPLE</b>	<b>NUMBER OF BITS</b>
<b>IPv4</b>	<b>192.169.0.3</b>	
<b>IPv6</b>	<b>1050:a500:00c0:0440:0006:0300:700d:436f</b>	

## Question 4 (d) Diagram



**Question 5 (a)**  
**Table**

<b>REQUIREMENT</b>	<b>EXAMPLE</b>
<b>Input</b>	
<b>Process</b>	<b>Calculate the path the bee will move along to its new position</b>
<b>Output</b>	

**Question 5 (b) (i)**  
**Diagram**

**Speaker**

**CPU**

**Mouse**

**USB  
device**

**Question 5 (d) (i)**  
**Table**

<b>A</b>	<b>B</b>	<b>C</b>	<b>A AND C</b>	<b>(A AND C) OR B</b>
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>0</b>	<b>0</b>	<b>1</b>		
<b>0</b>	<b>1</b>	<b>0</b>		
<b>0</b>	<b>1</b>	<b>1</b>		
<b>1</b>	<b>0</b>	<b>0</b>		
<b>1</b>	<b>0</b>	<b>1</b>		
<b>1</b>	<b>1</b>	<b>0</b>		
<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

**Question 5 (d) (ii)**

**Blank space to construct a logic statement**