

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

COMPUTER SCIENCE
PAPER 1: Principles of Computer Science

Thursday 23 May 2024 – Afternoon
Time: 2 hours

Data Book

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

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

Surname					
Other names					
Centre Number					
Candidate Number					

INSTRUCTIONS

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

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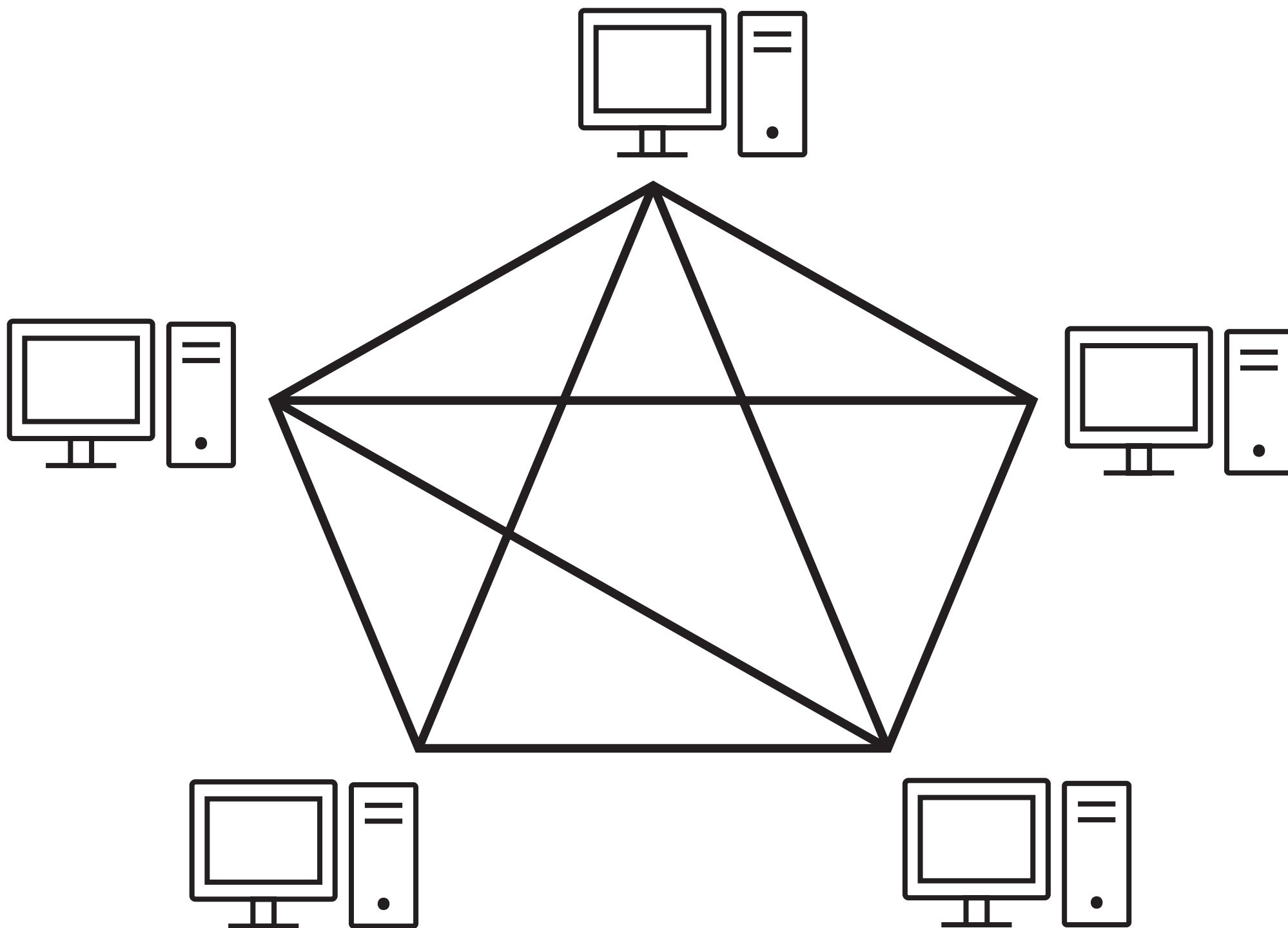
3	Question 1 (c)	Figure 1
4	Question 5 (a)	Complete the table.
5	Question 5 (c)	Complete the table.
6	Question 6	Figure 2
7	Question 6 (d)	Components needed for the flowchart
8	Question 6 (d)	Blank Space for flowchart

Spare Copies

9	Question 5 (a)	Complete the table.
10	Question 5 (c)	Complete the table.
11	Question 6 (d)	Blank Space for flowchart

Question 1 (c)

Figure 1



Question 5 (a)
Complete the table

CHARACTERISTIC	TRANSLATOR		
	ASSEMBLER	INTERPRETER	COMPILER
	Does NOT have to be present in memory to execute the translated code.		
	Translates high level language source code.		
	Executes high level code until either the program has finished, or a syntax error is encountered.		
Translates low level language source code into machine code.			

Question 5 (c)

Complete the table

ISSUE	UTILITY SOFTWARE
Her word processor cannot read all of a file because it is corrupt.	
She has a JPEG image and needs to send it to a publisher who can only read PNG image files.	
There has been a flood and files on a server have been damaged, but Anna needs to access her data.	
Her hard drive is running very slowly when she tries to access a file.	

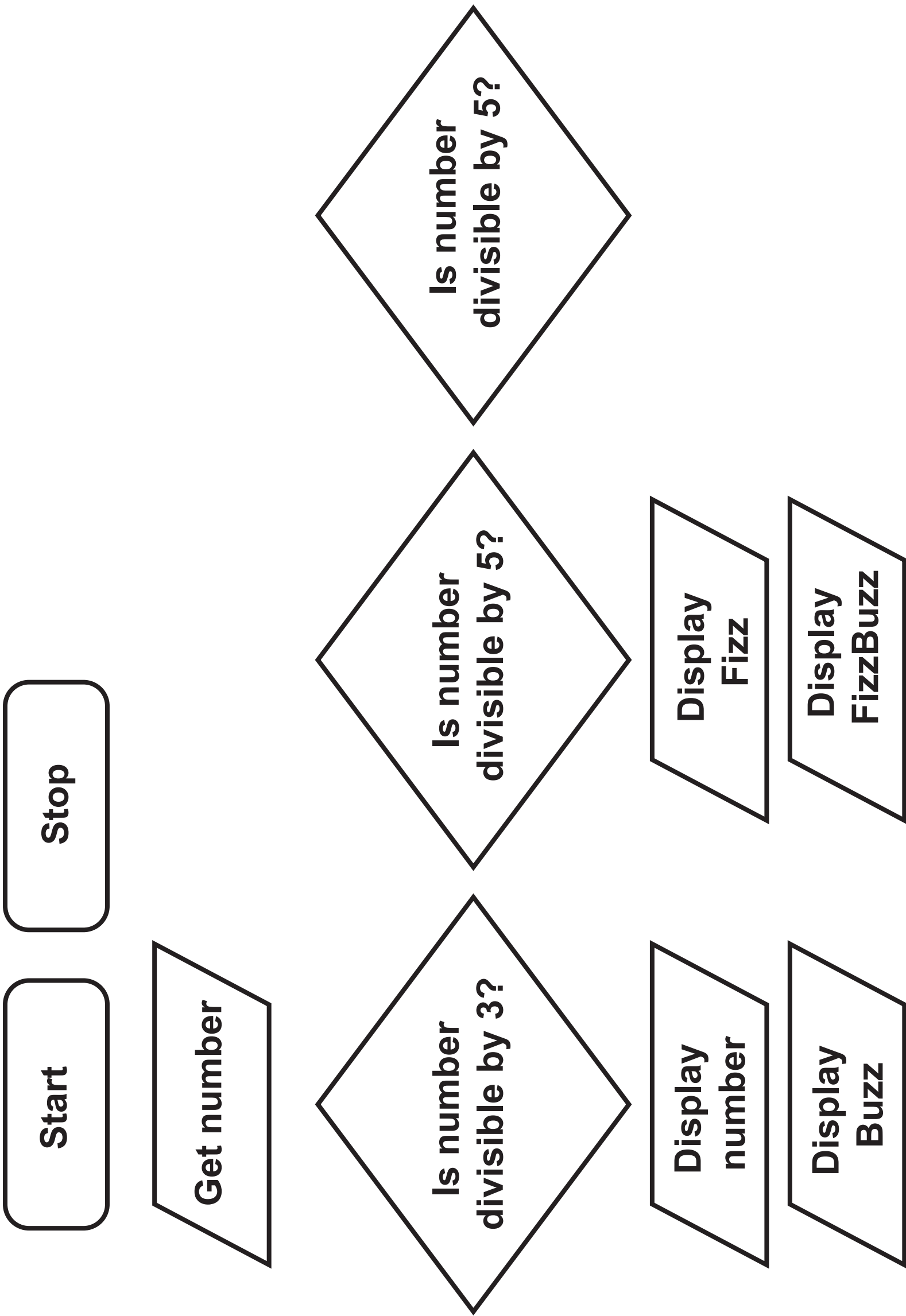
Question 6

Figure 2

```
01
02  SET arrival TO [-2, 1, 5, 0, -3, 4, 1]
03
04  SET early TO 0
05  SET late TO 0
06  SET index TO 0
07
08  WHILE NOT (index > LENGTH(arrival)) DO
09
10      IF arrival[index] >= 0 THEN
11          SET late TO arrival[index]
12      ELSE
13          IF arrival[index] < 0 THEN
14              SET early TO early + 1
15          END IF
16      END IF
17
18      SET index TO index + 1
19
20  END WHILE
21
22  SEND "Trains early: " & early TO DISPLAY
23  SEND "Trains on time: " & (late + early) TO DISPLAY
24  SEND "Trains late: " & late TO DISPLAY
25
```

Question 6 (d)

Components needed for the flowchart



Question 6 (d)

Blank Space for flowchart

Question 5 (a)
Complete the table

CHARACTERISTIC	TRANSLATOR		
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Question 5 (c)

Complete the table

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Question 6 (d)

Blank Space for flowchart