





**(Question 1 continued)**

Lined area for writing the answer to Question 1.

**(Total 9 marks)**

**Q1**



2.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
<b>A</b>	-	24	-	-	23	22
<b>B</b>	24	-	18	19	17	20
<b>C</b>	-	18	-	11	14	-
<b>D</b>	-	19	11	-	13	-
<b>E</b>	23	17	14	13	-	21
<b>F</b>	22	20	-	-	21	-

(a)



**Diagram 1**



**(Question 2 continued)**

(b) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(c)



**Diagram 2**

Total weight of tree \_\_\_\_\_

**(Total 8 marks)**

Q2



3. (a)



**(Question 3 continued)**

- (b) \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**(Total 7 marks)**

**Q3**



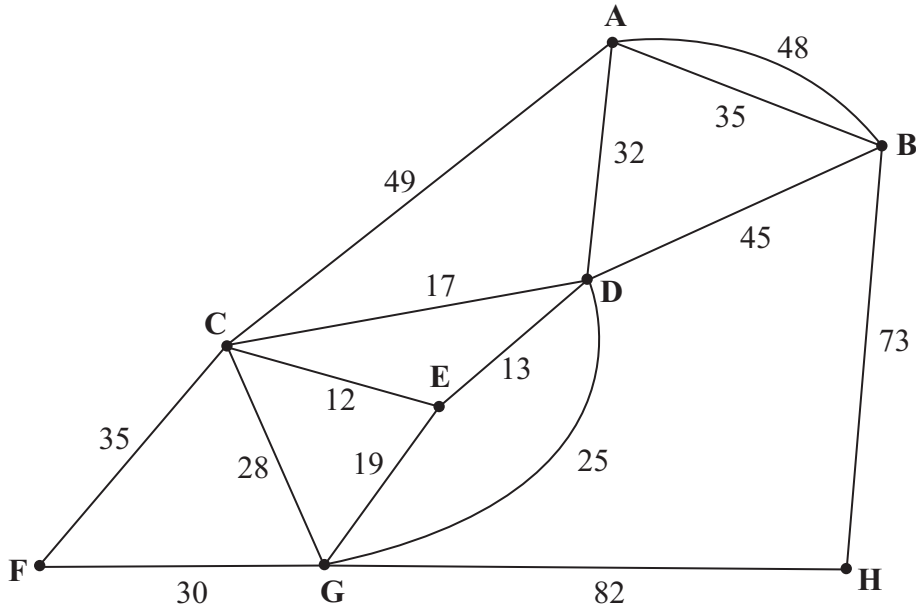
N 3 1 4 8 1 A 0 7 2 0







5.



**Figure 3**

*(The total weight of the network in Figure 3 is 543 km.)*

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Leave  
blank

**(Question 5 continued)**

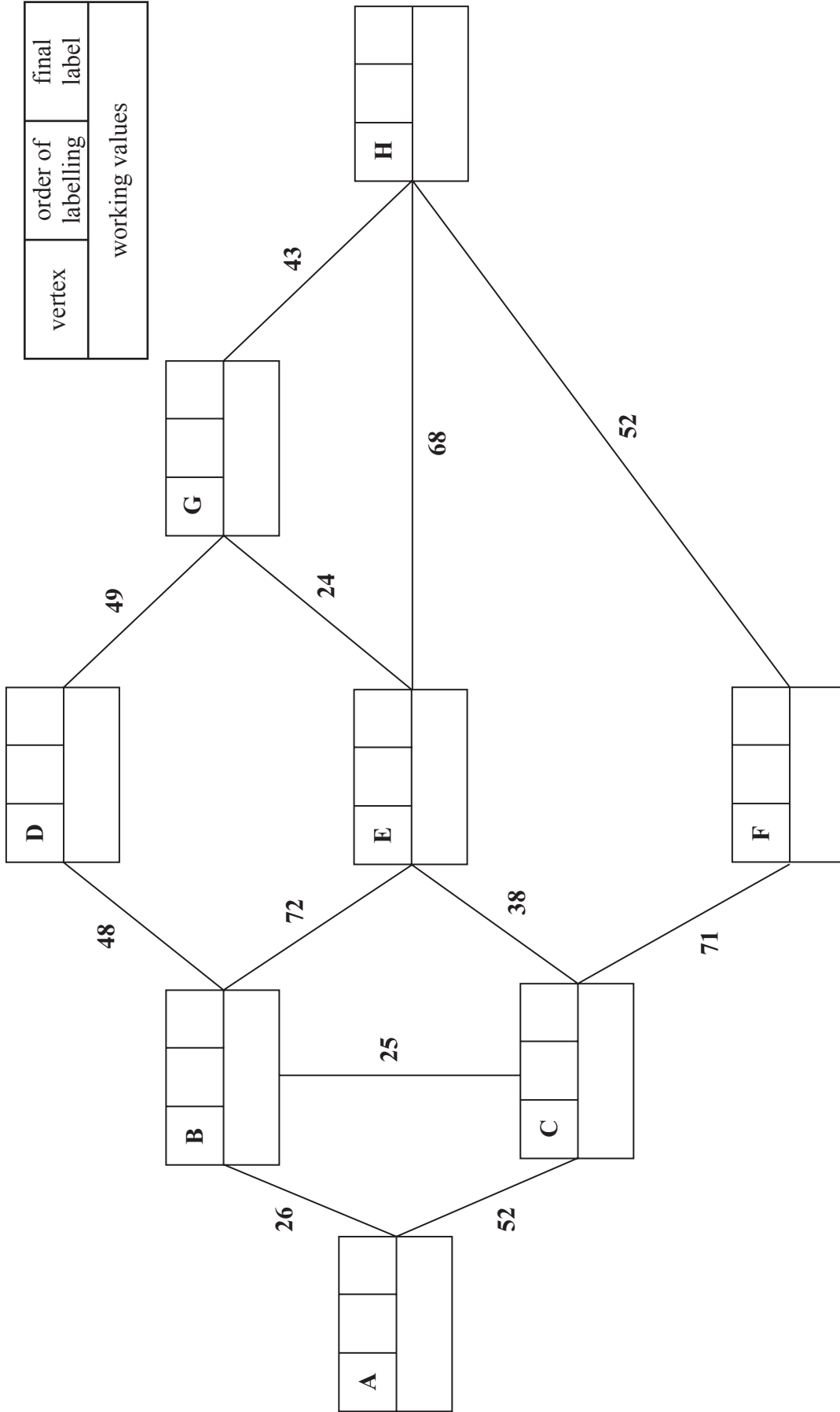
Blank lined area for writing the answer to Question 5.

Q5

**(Total 8 marks)**



6. (a)



vertex	order of labelling	final label
working values		

<b>G</b>		
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<b>A</b>		
----------	--	--

<b>E</b>		
----------	--	--

<b>C</b>		
----------	--	--

<b>D</b>		
----------	--	--

<b>B</b>		
----------	--	--

<b>F</b>		
----------	--	--

<b>H</b>		
----------	--	--



**(Question 6 continued)**

shortest route: \_\_\_\_\_ length: \_\_\_\_\_

(b) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

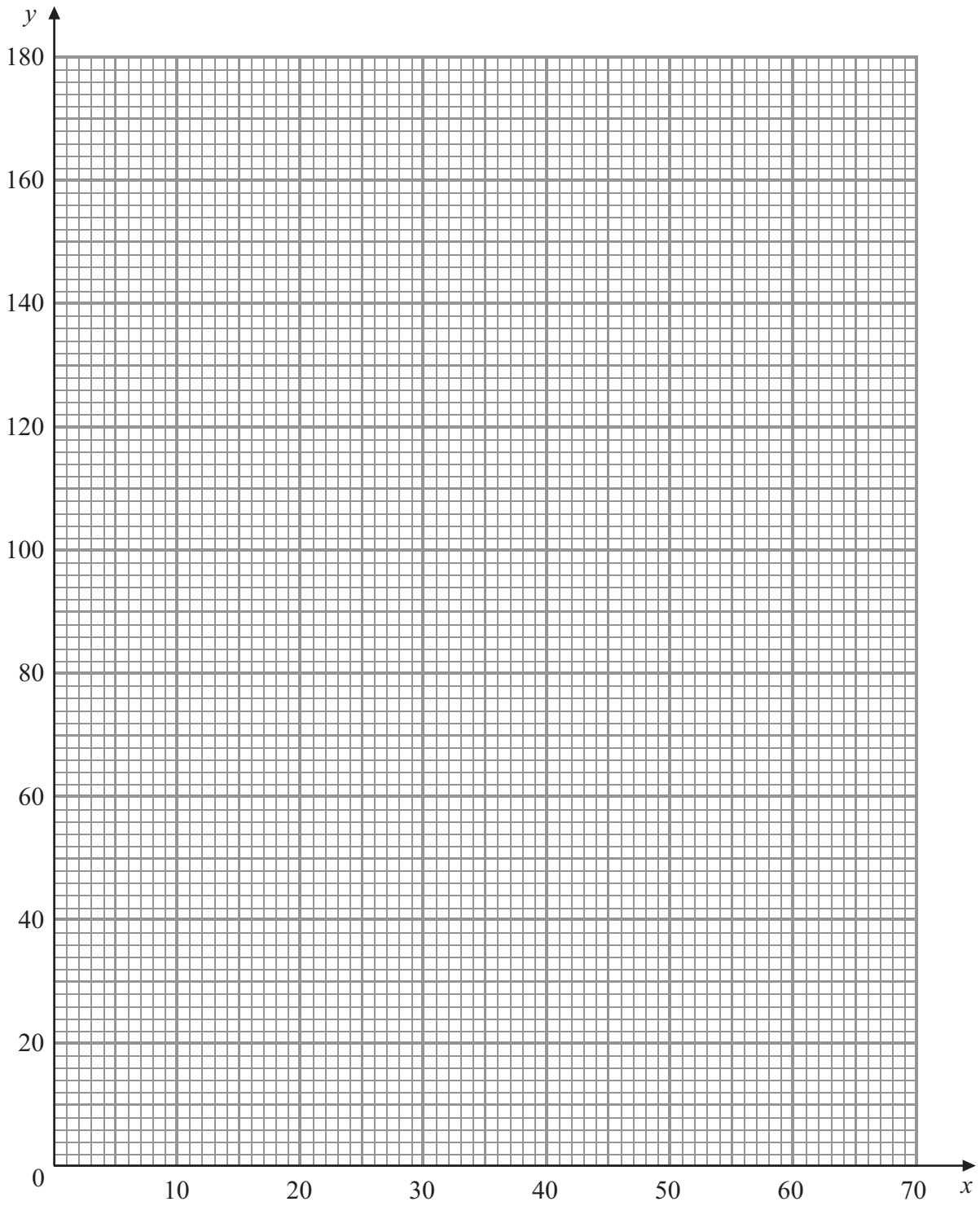
shortest route (avoiding C): \_\_\_\_\_  
length: \_\_\_\_\_

**(Total 7 marks)**

Q6



7.



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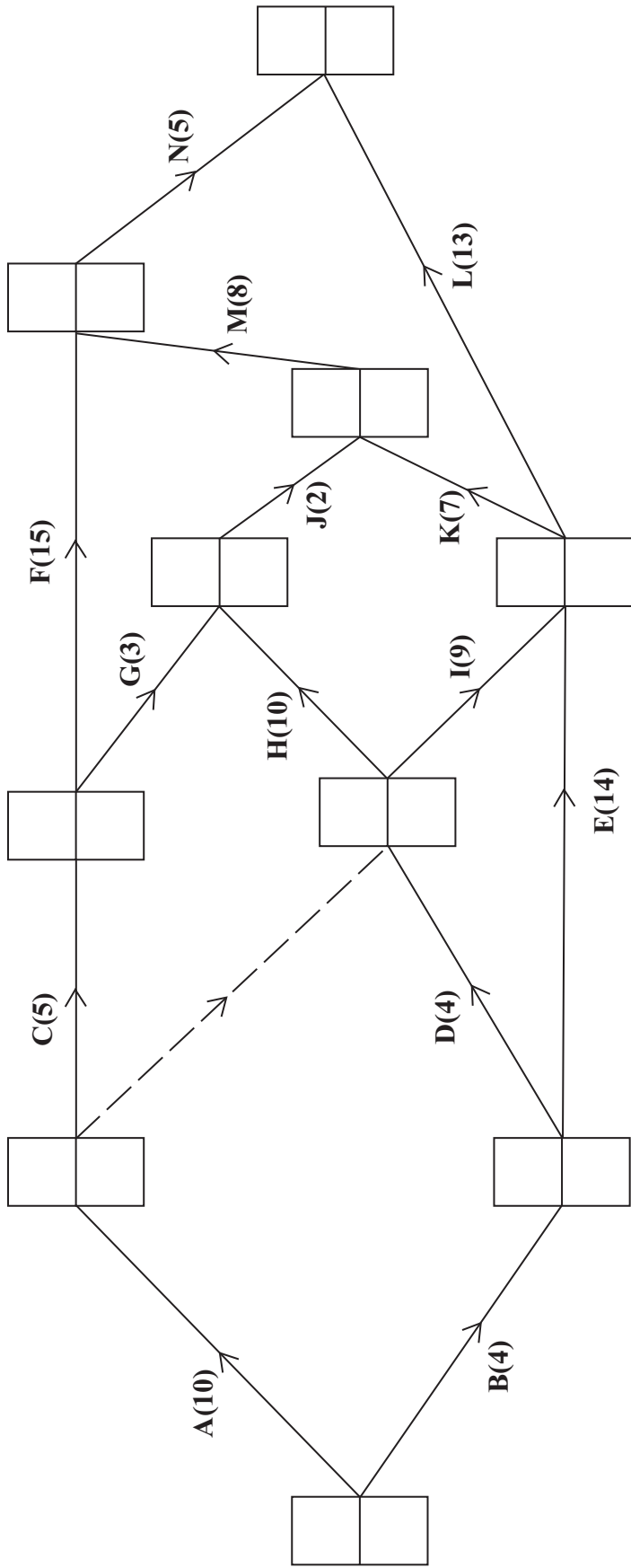
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8. (a)



(b) Critical activities:

Length of critical path:

(c) Total float on activity F:

Total float on activity G:

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(Question 8 continued)

(d)

0	
2	
4	
6	
8	
10	
12	
14	
16	
18	
20	
22	
24	
26	
28	
30	
32	
34	
36	
38	
40	
42	
44	

(e)


(Total 16 marks)

Q8

TOTAL FOR PAPER: 75 MARKS

END

