

**Started on** Friday, 4 September 2020, 8:02 PM**State** Finished**Completed on** Friday, 4 September 2020, 8:18 PM**Time taken** 16 mins 2 secs**Marks** 42.00/42.00**Grade** 10.00 out of 10.00 (100%)

## Information

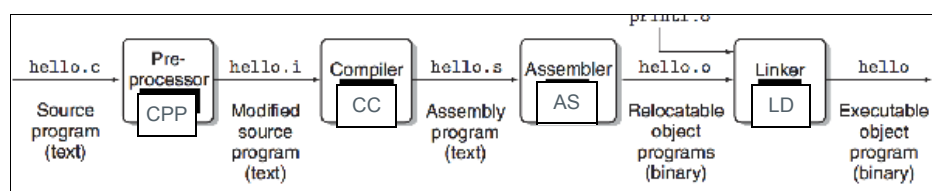
The following questions test your reading of Chapter 1.

## Question 1

Correct

Mark 2.00 out of 2.00

Compilation is composed of multiple steps. Drag the appropriate tools to the proper stage.



Your answer is correct.

Question **2**

Correct

Mark 2.00 out of 2.00

## Fewer, Faster

Registers	✓
Level One Cache	✓
Level Two Cache	✓
Level Three Cache	✓
RAM	✓
Disks	✓
Remote Storage	✓

## More, Slower

Your answer is correct.

Question **3**

Correct

Mark 2.00 out of 2.00

Files are abstractions for  ✓, virtual memory is an abstraction for  ✓, and processes are abstractions for the  ✓.

Your answer is correct.

## Question 4

Correct

Mark 2.00 out of 2.00

Fill in the following truth table for AND.

X	Y	X & Y
0	0	0 ✓
0	1	0 ✓
1	0	0 ✓
1	1	1 ✓

## Question 5

Correct

Mark 2.00 out of 2.00

Fill in the following truth table for OR.

X	Y	X   Y
0	0	0 ✓
0	1	1 ✓
1	0	1 ✓
1	1	1 ✓

Question **6**

Correct

Mark 2.00 out of 2.00

Fill in the following truth table for XOR.

X	Y	$X \wedge Y$
0	0	0 ✓
0	1	1 ✓
1	0	1 ✓
1	1	0 ✓

Question **7**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise AND of the following binary numbers:

	0	1	0	1
&	0	0	1	1
	0	0	0	1
	✓	✓	✓	✓

Question **8**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise AND of the following binary numbers:

	1	0	1	1	1	1
&	1	0	0	0	1	0
	1	0	0	0	1	0
	✓	✓	✓	✓	✓	✓

Question **9**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise OR of the following binary numbers:

	1	0	0	1
	1	1	0	0
	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="1"/>
	✓	✓	✓	✓

Question **10**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise OR of the following binary numbers:

	0	0	0	0	1	1	0
	0	1	0	0	0	0	1
	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>
	✓	✓	✓	✓	✓	✓	✓

Question **11**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise XOR of the following binary numbers:

	0	1	0	1	1
^	0	1	1	0	0
	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>
	✓	✓	✓	✓	✓

Question **12**

Correct

Mark 2.00 out of 2.00

Perform a bit-wise XOR of the following binary numbers:

	1	0	1	0	0	1	1
^	1	0	1	1	0	0	1
	0	0	0	1	0	1	0
	✓	✓	✓	✓	✓	✓	✓

Question **13**

Correct

Mark 2.00 out of 2.00

Compute the C logical negation (!) of the following binary number:

!	0	0	0	0	0	1	0	1
	0	0	0	0	0	0	0	0
	✓	✓	✓	✓	✓	✓	✓	✓

Question **14**

Correct

Mark 2.00 out of 2.00

Convert the binary number **10100101** into its hexadecimal equivalent assuming an 8-bit word.

Hexadecimal =	<input type="text" value="A"/> ✓	<input type="text" value="5"/> ✓
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Question **15**

Correct

Mark 2.00 out of 2.00

Convert the binary number **11101001** into its hexadecimal equivalent assuming an 8-bit word.

Hexadecimal =	<input type="text" value="E"/> ✓	<input type="text" value="9"/> ✓
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## Question 16

Correct

Mark 2.00 out of 2.00

Convert the binary number **01010100** into its hexadecimal equivalent assuming an 8-bit word.

Hexadecimal =	<input type="text" value="5"/>	✓	<input type="text" value="4"/>	✓
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## Question 17

Correct

Mark 2.00 out of 2.00

Convert the hexadecimal number **0x68** into its binary equivalent.

Binary =	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
	✓	✓	✓	✓	✓	✓	✓	✓

## Question 18

Correct

Mark 2.00 out of 2.00

Convert the hexadecimal number **0xf3** into its binary equivalent.

Binary =	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="1"/>
	✓	✓	✓	✓	✓	✓	✓	✓

## Question 19

Correct

Mark 2.00 out of 2.00

Perform a 3-bit left shift of the following binary number:

0	1	0	1	1	<<3
<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	
✓	✓	✓	✓	✓	

Question 20

Correct

Mark 4.00 out of 4.00

Perform a 3-bit logical right shift of the following binary number:

1	0	1	0	1	0	1	>>3
0	0	0	1	0	1	0	
✓	✓	✓	✓	✓	✓	✓	

Perform a 3-bit arithmetic right shift of the following binary number:

1	0	1	0	1	0	1	>>3
1	1	1	1	0	1	0	
✓	✓	✓	✓	✓	✓	✓	