

**Xi'an Jiaotong-Liverpool University**

# 西交利物浦大学

MODULE CODE	EXAMINER	DEPARTMENT	TEL
CPT101	STEVEN GUAN	COMPUTING	1501

**1st SEMESTER 2023/24 Open-Book FINAL EXAMINATIONS**

**BACHELOR DEGREE – Year 2**

**COMPUTER SYSTEMS**

**TIME ALLOWED: 2 Hours**

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**INSTRUCTIONS TO CANDIDATES**

- This is an open-book exam.
- Total marks available are 100.
- Answer all questions.
- No calculator is allowed during the examination.
- Only answers in English are accepted.

**THIS PAPER MUST NOT BE REMOVED FROM THE EXAM HALL.**

## Part II. (40 marks)

26. Drag-and-drop (for online test) or write the sequence number (for on-site test) of the assembly code to form a program that finds the **sum of odd** numbers between **1 and 100** and stores this value in the `eax` register. Note that your sequence must absolutely match the line numbers to the left-most column of the table. The answers for Lines 2,3, and 5 have been provided. Complete the rest. **(30 marks)**

	Correct Sequence	Pick From Here	
Line 1	1	<del>1</del>	<code>mov eax, 0</code>
Line 2	2	<del>2</del>	<code>mov ebx, 1</code>
Line 3	3	<del>3</del>	<code>mov ecx, 100</code>
Line 4	11 10	4	<code>mov eax, 1</code>
Line 5	5 6	<del>5</del>	<code>jz L2</code>
Line 6	13 9	6	<code>L1: and ebx, 00H</code>
Line 7	9 13	7	<code>L1: and ebx, 01H</code>
Line 8	12 12	8	<code>L2 : inc eax</code>
		<del>9</del>	<code>L2 : inc ebx</code>
		10	<code>L1: test ebx, 00H</code>
		11	<code>L1: test ebx, 01H</code>
		<del>12</del>	<code>loop L1</code>
		13	<code>add eax, ebx</code>
		14	<code>loop L2</code>

END OF PAPER