Xi'an Jiaotong-Liverpool University

西交利物浦大學

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

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	mov eax, 0
Line 2	2	2	mov ebx, 1
Line 3	3	3	mov ecx, 100
Line 4		4	mov eax, 1
Line 5	5	5	jz L2
Line 6		6	L1: and ebx, 00H
Line 7		7	L1: and ebx, 01H
Line 8		8	L2 : inc eax
		9	L2 : inc ebx
		10	L1: test ebx, 00H
		11	L1: test ebx, 01H
		12	loop L1
		13	add eax, ebx
		14	loop L2

END OF PAPER