# Xi'an Jiaotong-Liverpool University



MODULE CODE	EXAMINER	DEPARTMENT	TEL
CPT101		COMPUTER SCIENCE	

#### 1st SEMESTER 2022/23 RESIT EXAMINATIONS

**BACHELOR DEGREE - Year 2** 

**COMPUTER SYSTEMS** 

**TIME ALLOWED: 2 Hours** 

#### **INSTRUCTIONS TO CANDIDATES**

- 1. This is an open-book exam.
- 2. Answer all questions.
- 3. Answers should be written in the answer booklet(s) provided.
- 4. No calculator is allowed during the examination.
- 5. Only answers in English are accepted.

THIS PAPER MUST NOT BE REMOVED FROM THE EXAM HALL.

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# 西交利物浦大学

**28. (20 marks)** Supply correct arguments and instructions to the missing places **(i)** to **(x)** in the following program segment that ensures the user enter a number greater than 10 otherwise the program requests the user to input again.

```
1
     int number;
2
     (i) format[] = "%d";
3
     asm{
     (ii):
4
5
      (iii) eax, number; load number's memory address
6
      push eax ; push onto stack
      lea ebx, (iv)
7
      push (V) ; push onto stack
8
      call (vi) ; read user input
9
10
      add esp, (vii) ; return stack pointer
11
      mov eax, (viii) ; move user input into eax
      \operatorname{cmp} eax, (ix) ; compare with set condition
12
13
      (x) readNumber ; jump if condition not met
14
     }
```

### **END OF PAPER**