

資訊概論 試題

(限用答案本作答)

1. (12%) Convert each of the following base ten representations to its equivalent two's complement representation in which each value is represented in eight bits:
(a) 99 (b) -88 (c) -1
2. (8%) Express the following base ten values in binary notation:
(a) 4.5 (b) 5.625
3. (10%) In a computer, the control unit inside the CPU performs its job by continually repeating an algorithm that guides it through a three-step process known as the machine cycle. Name and describe the three steps in the machine cycle.
4. (10%) What is the difference between the virtual memory and the main memory.
5. (10%) List the main characteristics of an object-oriented programming language.
6. (10%) A translator is a program that translates programs expressed in high-level primitives into machine-language programs. Please explain and compare the two kinds of translator: compilers and interpreters.
7. (10%) What is a sequential file? What is an indexing file?
8. (10%) Write a program using the giving machine language to add two numbers located in memory cells 5C and 5D and store the result in memory cell 5E.

Op-code Operand Description

1	RXY	LOAD the register R with the bit pattern found in the memory cell whose address is XY.
3	RXY	STORE the bit pattern found in register R in the memory cell whose address is XY.
5	RST	ADD the bit pattern found in register S and T as though they were two's complement representations and leave the result in register R.
C	000	HALT execution.

9. (20%) Explain the following terms. (a) HTTP (b) TCP/IP (c) JPEG (d) Computer Virus (e) Vector Graphics

試題完
