

慈濟大學 110 學年度
碩博士班、博士學位學程暨碩士在職專班
招生考試命題紙

科目：計算機概論

共 3 頁

1. Multiple-Choice Questions (60%)

- (1) The base of the binary number system is ____.
- a. 2
 - b. 8
 - c. 10
 - d. 16
- (2) A byte consists of _____ bits.
- a. 2
 - b. 4
 - c. 8
 - d. 16
- (3) How many symbols can be represented by a bit pattern with ten bits?
- a. 128
 - b. 256
 - c. 512
 - d. 1024
- (4) Which of the following is equivalent to 24 in decimal?
- a. $(11000)_2$
 - b. $(1A)_{16}$
 - c. $(31)_8$
 - d. None of the above
- (5) For an 8-bit allocation, the largest decimal number that can be represented in two's complement form is _____.
- a. 8
 - b. 127
 - c. 128
 - d. 256
- (6) For the binary AND operation, only an input of _____ gives an output of 1.
- a. two 0s
 - b. two 1s
 - c. one 0 and one 1
 - d. two 2s

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- (7) _____ operator (s), if the input is two 0s, the output is 0.
- In only AND
 - In only OR
 - In only XOR
 - In AND, OR, or XOR
- (8) The three steps in the running of a program on a computer are performed in the specific order _____.
- fetch, execute, and decode
 - decode, execute, and fetch
 - fetch, decode, and execute
 - decode, fetch, and execute
- (9) The _____ layer of the TCP/IP protocol suite transmits a bit stream over a physical medium.
- physical
 - data-link
 - network
 - transport
- (10) A stack is a _____ structure.
- FIFO
 - LIFO
 - DIFO
 - SIFO
- (11) In the system development process, writing the program is part of the _____ phase.
- analysis
 - design
 - implementation
 - testing
- (12) In _____ cryptography, the same key is used in both directions.
- symmetric-key
 - asymmetric-key
 - public-key
 - open-key

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2. Essay Question (20%)

Please describe ALGORITHM in a formal definition.

3. Calculation Question (20%)

Show the Excess₁₂₇ (single precision) representation of the decimal number 52.125