

assembly - 0925(H.W)

1. Provide examples of three different instruction mnemonics.

ANSWER: **ADD, MOV, JMP**

2. What is a calling convention, and how is it used in assembly language declarations?

ANSWER: 'calling convention'은 함수 호출 방식의 규칙. 어셈블리에서는 함수 선언 시 프로토타입과 인자 전달 방식을 지정하는 데 사용함.

3. How do you reserve space for the stack in a program?

ANSWER: 스택 공간은 어셈블리 지시어로 메모리 블록을 확보한 뒤 **ss, sp** 레지스터를 초기화하여 사용함.

4. Explain why the term assembler language is not quite correct.

ANSWER: assembler는 프로그램이고 assembly가 언어이기 때문에 'assembly language'가 정확한 표현이다.

5. Explain the difference between big endian and little endian. Also, look up the origins of this term on the Web.

ANSWER: **big endian**은 **MSB**를 메모리의 낮은 주소 쪽에 저장하고 **little endian**은 **LSB**를 메모리의 낮은 주소 쪽에 저장하는 것.

6. Why might you use a symbolic constant rather than an integer literal in your code?

ANSWER: 가독성, 유지보수성, 이식성이 좋아지고 오류가능성이 줄어들기 때문

7. How is a source file different from a listing file?

ANSWER: 소스 파일은 프로그래머가 작성한 원본 코드이고 리스팅 파일은 어셈블러가 생성한 코드+주소+기계어 정보를 담은 출력 파일이다.

8. How are data labels and code labels different?

ANSWER: 데이터 레이블은 데이터의 메모리 주소를 식별하는 것이고, 코드 레이블은 프로그램 실행 위치를 식별해 분기, 점프 명령에 사용됨.

9. (True/False): An identifier cannot begin with a numeric digit.

ANSWER: **True**

10. (True/False): A hexadecimal literal may be written as 0x3A.

ANSWER: False

11. (True/False): Assembly language directives execute at runtime.

ANSWER: False

12. (True/False): Assembly language directives can be written in any combination of uppercase and lowercase letters.

ANSWER: True

13. Name the four basic parts of an assembly language instruction.

ANSWER: Label, Mnemonic, Operands, Comment

14. (True/False): MOV is an example of an instruction mnemonic.

ANSWER: True

15. (True/False): A code label is followed by a colon (:), but a data label does not end with a colon.

ANSWER: True

16. Show an example of a block comment.

```
;*****  
; This is a block comment
```

17. Why is it not a good idea to use numeric addresses when writing instructions that access variables?

ANSWER: 가독성, 유지보수성, 오류 방지, 이식성이 떨어지기 때문

18. What type of argument must be passed to the ExitProcess procedure?

ANSWER: ExitProcess는 DWORD 형식의 정수를 인자로 전달해야함.

19. Which directive ends a procedure?

ANSWER: ENDP

20. In 32-bit mode, what is the purpose of the identifier in the END directive?

ANSWER: 프로그램의 시작점 라벨을 지정하는 역할

21. What is the purpose of the PROTO directive?

ANSWER: 함수의 이름, 인자 수/타입, 호출 규약 등을 선언하여 호출 인터페이스를 정의하는 데 사용됨.

22. (True/False): An Object file is produced by the Linker.

ANSWER: False

23. (True/False): A Listing file is produced by the Assembler.

ANSWER: True

24. (True/False): A link library is added to a program just before producing an Executable file.

ANSWER: True

25. Which data directive creates a 32-bit signed integer variable?

ANSWER: Signed Double Word(SDWORD)

26. Which data directive creates a 16-bit signed integer variable?

ANSWER: Signed Word(SWORD)

27. Which data directive creates a 64-bit unsigned integer variable?

ANSWER: Quad Word(QWORD)

28. Which data directive creates an 8-bit signed integer variable?

ANSWER: Signed Byte(SBYTE)

29. Which data directive creates a 10-byte packed BCD variable?

ANSWER: Ten Bytes(TBYTE)