

Makeup Test (Quiz 01)

Student ID: _____

Student Name: _____

Course Code: CIS131

Course Title: Computer Architecture and Organization

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Section: _____

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Exam Duration: 15 mins

Marks: 15

1. Which register holds the address of the next instruction to be executed?

☐ ACC

☐ IR

☐ PC

☐ MDR

2. IEEE 754 double precision floating point uses how many bits?

☐ 32 bits

☐ 16 bits

☐ 64 bits

☐ 128 bits

3. Which cycle does the Control Unit manage?

☐ Read-Write-Store

☐ Input-Process-Output

☐ Fetch-Decode-Execute

☐ Compile-Run-Debug

4. Which register stores intermediate results during computation?

☐ IR

☐ MDR

☐ PC

☐ ACC

5. How many bits does ASCII use?

☐ 4

☐ 7

☐ 128

☐ 16

6. Which generation of computers introduced Microprocessors?

☐ Second

☐ Third

☐ Fourth

☐ Fifth

7. In Packed BCD format, how many decimal digits are stored per byte?

☐ 1

☐ 1

☐ 4

☐ 8

8. In BCD, each decimal digit is encoded into:

☐ 4 bits

☐ 8 bits

☐ 2 bits

☐ 16 bits

9. For the value 450 (0x000001C2), what is the first byte stored in Little-endian format?

☐ 00

☐ 01

☐ C2

☐ 1C

10. In MIPS I-type format, how many bits are used for the constant/address field?

- ☐ 6 bits ☐ 5 bits ☐ 16 bits ☐ 26 bits

11. If the exponent in a floating-point representation is stored in excess-256 form, how many bits (k) are required for the exponent field?

- ☐ 8 ☐ 9 ☐ 7 ☐ 10

12. BCD works directly on which radix?

- ☐ Radix 2 ☐ Radix 8 ☐ Radix 10 ☐ Radix 16

13. "Add r1, 100(r2)" represents which addressing mode?

- ☐ Indexed addressing ☐ Memory indirect addressing
☐ Displacement addressing ☐ Auto-increment addressing

14. Consider the fixed notation <6,2> and find the 2's complement fixed-point representation of the decimal number -6.25.

- ☐ 1001.11 ☐ 0110.01 ☐ 10.0111 ☐ 01.1001

15. Which instruction encoding is used by ARM and MIPS?

- ☐ Variable length ☐ Fixed length (32-bit)
☐ Variable length (1–18 bytes) ☐ 64-bit fixed length