CS501 Solved Grand Quiz 2020

Question No 1

_____ control signal enables the input to the PC for receiving a value that is currently on the internal processor bus.

Select Correct Option

- ✓ **LPC**……(For More Visit VUStudents.pk)
- ✓ INC4
- ✓ LC
- ✓ Cout

Question No 2

The Memory Buffer Register (MBR) has a _____ connection with both the memory sub-system and the registers/ALSU.

Select Correct Option

- ✓ Zero-directional
- ✓ Uni-directional
- ✓ **Bi-directional**……(For More Visit VUStudents.pk)
- ✓ Tri-directional

Question No 3

MC68000 has a 32-bit program counter but only the least significant _____ bits are used.

Select Correct Option

- ✓ 8
- ✓ **16**……(For More Visit VUStudents.pk)
- ✓ 20
- ✓ 24

Question No 4

All of the below given processors employ Little-Endian storage format expect_____.

Select Correct Option

- ✓ EAGLE
- ✓ Modified EAGLE
- ✓ **Falcon-A**……(For More Visit VUStudents.pk)
- ✓ Falcon-E

Question No 5

While executing the RTL instruction A ◄— R3. Which of the given below control signals will be activated?

Select Correct Option

- ✓ **LA, R3in**……(For More Visit VUStudents.pk)
- ✓ R3out
- ✓ LA, R3out
- ✓ R3in, Lout

Question No 6

Which of the following RTL descriptions is used to represent the target of Falcon-A instruction?

Select Correct Option

- ✓ rb<2..0> := IR<7..5>
- ✓ ra<2..0> := IR<10..8>
- ✓ **rb<2..0> := IR<10..8>**……(For More Visit VUStudents.pk)
- ✓ rc<2..0> := IR<4..2>

Question No 7

Which of the following register(s) is/are programmer invisible and is/are required to hold an operand or result value while the bus is busy transmitting some other value?

Select Correct Option

- ✓ Instruction Register
- ✓ Memory Address register
- ✓ Memory Buffer Register
- ✓ **Registers A and C**……(For More Visit VUStudents.pk)

Question No 8

Which of the following register is used as an implicit operand in MUL/DIV instruction of Falcon-A?

Select Correct Option

- ✓ R0
- ✓ OC
- ✓ **IR**……(For More Visit VUStudents.pk)
- ✓ SP

Question No 9

In Which of the following addressing modes, the address of the memory from where the value is to be accessed is given in the instruction?

Select Correct Option

- ✓ **Direct Addressing**……(For More Visit VUStudents.pk)
- ✓ Immediate Addressing
- ✓ Indirect Addressing
- ✓ Register Direct Addressing

Question No 10

Which one of the following control signals causes the data from the bus to be read into the register MAR.

Select Correct Option

- ✓ MARout
- ✓ MARin
- ✓ **LMAR**……(For More Visit VUStudents.pk)
- ✓ None of the given

Question No 11

Program counter (PC) and Instruction register (IR) are normally 16-bit registers, however in SRC, these are _____.

Select Correct Option

- ✓ 31-bit
- ✓ 16-bit
- ✓ **32-bit**……(For More Visit VUStudents.pk)
- ✓ 64-bit

Question No 12

_____ controls the sequence of the flow of microinstructions.

Select Correct Option

- ✓ Multiplexer
- ✓ **Micro Program controller**……(For More Visit VUStudents.pk)
- ✓ DMA Controller
- ✓ Virtual memory

Question No 13

The SRC uses a hazard detection unit. The hazard can be resolved using either pipeline stalls or by_____.

Select Correct Option

- ✓ **Data forwarding**……(For More Visit VUStudents.pk)
- ✓ Data compressing
- ✓ Instruction forwarding
- ✓ Instruction handling

Question No 14

All registers of FALCON-A are of _____ while in case of SRC all registers are _____.

Select Correct Option

- ✓ **16-bits, 32 bits**……(For More Visit VUStudents.pk)
- ✓ 24-bits, 32 bits
- ✓ 32-bits, 16 bits
- ✓ 32-bits, 64 bits

Question No 15

Which type of instructions load data from memory into registers, or store data from registers into memory and transfer data between different kinds of special-purpose registers?

Select Correct Option

- ✓ Arithmetic
- ✓ Control
- ✓ **Data transfer**……(For More Visit VUStudents.pk)
- ✓ Floating point

Question No 16

In SRC, which of the following notation which is used to represent 32-bit memory word stored at address starting from 56?

Select Correct Option

- ✓ M[56]<31..0> := M[56] M[57] M[58] M[59]
- ✓ **M[56]<0..31> := M[56] M[57] M[58] M[59]**……(For More Visit VUStudents.pk)
- ✓ M[56]<0..31> := M[59] M[58] M[57] M[56]
- ✓ M[56]<31..0> := M[59] M[58] M[57] M[56]

Question No 17

A machine cycle is defined to be the time it takes to fetch _____ operands from registers, perform an Arithmetic Logic Unit (ALU) operation and store the result in a register.

Select Correct Option

- ✓ **Three**……(For More Visit VUStudents.pk)
- ✓ Two
- ✓ One
- ✓ Four

Question No 18

In a processor, _____ is responsible for the synchronization of internal as well as external events.

Select Correct Option

- ✓ Memory Unit
- ✓ Data Unit
- ✓ **Arithmetic & Logical Unit**……(For More Visit VUStudents.pk)
- ✓ Control Unit

Question No 19

For a processor having 32 general purpose registers, _____ bits are required for each register field in the instruction.

Select Correct Option

- ✓ **32**……(For More Visit VUStudents.pk)
- ✓ 3
- ✓ 8
- ✓ 5

Question No 20

Which temporary register is loaded with either a register value file or a constant from the instruction?

Select Correct Option

- ✓ **Y3**……(For More Visit VUStudents.pk)
- ✓ X3
- ✓ Z4
- ✓ Z5

Question No 21

_____ provides a temporary storage for the address of memory location to be accessed.

Select Correct Option

- ✓ **MAR**……(For More Visit VUStudents.pk)
- ✓ MBR
- ✓ PC
- ✓ LPC

Question No 22

What does the word 'D' in the D-flip-flop' stand for?

Select Correct Option

- ✓ **Data**……(For More Visit VUStudents.pk)
- ✓ Digital
- ✓ Dynamic
- ✓ Double

Question No 23

The syntax of the instruction "branch and link if zero" is

Select Correct Option

- ✓ brzr ra, rb, rb
- ✓ brnz ra, rb, rc
- ✓ **brlzr ra, rb, rc**……(For More Visit VUStudents.pk)
- ✓ brlnz ra, rb, rc

Question No 24

In SRC, the effective address is computed at run-time by adding a constant to value of ____ register.

Select Correct Option

- ✓ FLAGS
- ✓ IR
- ✓ **PC**……(For More Visit VUStudents.pk)
- ✓ RA

Question No 25

To apply two shifts to an input number using the barrel shifter, the control signals S1 and S0 of the shifter should be _____.

Select Correct Option

- ✓ **S1 = 1 and S0 = 1**……(For More Visit VUStudents.pk)
- ✓ S1 = 0 and S0 = 1
- ✓ S1 = 1 and S0 = 0
- ✓ S1 = 2 and S0 = 0

Question No 26

In MC68000, _____ register is used as stack pointer.

Select Correct Option

- ✓ **A0**……(For More Visit VUStudents.pk)
- ✓ A7
- ✓ D0
- ✓ D7

Question No 27

In the case of a constant, variable, an address or (label-PC), the unconditional jump ranges _____.

Select Correct Option

- ✓ **From -128 to 127**……(For More Visit VUStudents.pk)
- ✓ From -64 to 63
- ✓ From -256 to 255
- ✓ From -32768 to 32767

Question No 28

The SPARC architecture defines a _____ that allows for multiple address spaces.

Select Correct Option

- ✓ **Memory Logic Unit (MLU)** ……(For More Visit VUStudents.pk)
- ✓ Memory Mapping Unit (MMU)
- ✓ Memory Shifting Unit (MSU)
- ✓ Memory Arithmetic Unit (MAU)

Question No 29

For the _____ type instructions, we require a register to hold the data that is to be loaded from the memory, or stored back to the memory.

Select Correct Option

- ✓ Jump
- ✓ Control
- ✓ **Load/store**……(For More Visit VUStudents.pk)
- ✓ Branch

Question No 30

RISC stands for?

Select Correct Option

- ✓ Registers internal system cache
- ✓ **Reduced instruction set computer**……(For More Visit VUStudents.pk)
- ✓ Register instruction set computer
- ✓ Reduced internal system computers

THE END