Graded Quiz 1

Quiz due Feb 26, 2022 19:40 +06 Past due

The following MCQ questions each carry 1 mark. Total 10*1 = 10 Marks. Each question has one attempt.

Multiple Choice

1.0/1.0 point (graded)

In a procedure call, callee procedure has to save in stack which of the following register's contents?

- $a0
- $v1
- $t1
- $s1 ✔

Submit You have used 1 of 1 attempt

MCQ

1.0/1.0 point (graded)

`sll $5,$3, 5`

In the binary encoding of the above instruction, determine the contents of **shamt** field.

- 00110
- 00011
- 00101 ✔
- 00000

Submit You have used 1 of 1 attempt

Multiple Choice

0.0/1.0 point (graded)

Which instruction is responible for saving the return address for a procedure in $ra?

- ○ jal ✔
- ○ jra
- ◉ jr
- ○ ja

✖

Submit You have used 1 of 1 attempt

Answers are displayed within the problem

Multiple Choice

0.0/1.0 point (graded)

Consider the following C Code:

x=B[6]

where the value of x is in $s1 and the base address of the byte array B is in $s2. If B[6] consists the data 11010010, what will be loaded in $s1 if we write the following MIPS code for 32-bit architecture?

```
lb $s1, 6($s2)
```

- ○ 11010010
- ◉ 00000000 00000000 00000000 11010010
- ○ 11111111 11111111 11111111 11010010 ✔
- ○ 00000000 11010010
- ○ 11111111 11010010

✖

Submit You have used 1 of 1 attempt

Answers are displayed within the problem

Multiple Choice

1.0/1.0 point (graded)

What will be the jump address of `j 2020` if PC holds 0x12341110?

- ○ 0 x 12341114
- ◉ 0 x 10000FC8

- ○ 0 x 12343130
- ○ 0 x 10000110

✔

Submit You have used 1 of 1 attempt

Multiple Choice

1.0/1.0 point (graded)

Suppose, the exact memory location of A[i] is in $t0. Which instruction can we use to load the value of A[i+2] in $t1? (Consider the values of array A is in 32 bits)

- ○ lw $t1, 0($t0)
- ◉ lw $t1, 8($t0)
- ○ lw $t1, 4($t0)
- ○ lw $t1, 16($t0)

✔

Submit You have used 1 of 1 attempt

Multiple Choice

1.0/1.0 point (graded)

For loading UTF-16 encoded characters (Each characters are encoded using 16 bits) into a register in MIPS architecture, which of the following instructions should be used?

- ○ LB
- ○ LBU
- ◉ LH
- ○ LW
- ○ SB

✔

Submit You have used 1 of 1 attempt

Multiple Choice

0.0/1.0 point (graded)

The instruction BLT is a/an-

- ○ R-format instruction

- (●) I-format instruction
- ( ) J-format instruction
- ( ) Pseudoinstruction ✔

✖

Submit You have used 1 of 1 attempt

ℹ Answers are displayed within the problem

Multiple Choice

0.0/1.0 point (graded)

Suppose $s6 register holds 0100 0001 1011 0100.

Now, you want to convert the 5th to 8th bits from the right to 0000 and keep all other bits the same.

Which of the following would you perform to do this?

- ( ) Perform OR between $s6 and 0000 0000 1111 0000
- ( ) Perform OR between $s6 and 1111 1111 0000 1111
- ( ) Perform NOR between $s6 and 0000 0000 1111 0000
- (●) Perform NOR between $s6 and 1111 1111 0000 1111
- ( ) Perform AND between $s6 and 0000 0000 1111 0000
- ( ) Perform AND between $s6 and 1111 1111 0000 1111 ✔

✖

Submit You have used 1 of 1 attempt

ℹ Answers are displayed within the problem

Multiple Choice

1.0/1.0 point (graded)

When encoding into machine code, what would be the value of RS and RT field respectively for the instruction: `SW $5, 12($3)` ?

- ( ) 00101 and 00011 respectiveley
- ( ) 00101 and 01100 respectiveley
- ( ) 00011 and 01100 respectiveley
- (●) 00011 and 00101 respectiveley

✔

Submit You have used 1 of 1 attempt

The following question holds 5 marks.

You are not allowed to use pseudoinstructions and li/mul/mult/div instructions. The question is fulfilling the CO2 of CSE340 OBE Curriculum

Write down the MIPS assembly instruction sequence of the following high-level language code. Assume all variables are integers and; x, y, and z are in the argument registers $a0, $a1, and $a3 respectively. Use $v0 for returning a value from the function.

```
Function median (x, y, z)
{
  If (x < y)
{
   If (y < z)
{
              return y;
           }
           else if (x < z)
           {
             return z;
           }
           return x;
}
}
```

OPEN RESPONSE ASSESSMENT

Status

You have completed this assignment. Your final grade will be available when the assessments of your response are complete.

Your Response due Jan 1, 2029 06:00 BDT (in 6 years, 7 months) ✔ COMPLETE

Status

Your response has been submitted. You will receive your grade after all steps are complete and your response is fully assessed.

The question for this section

> Write down the answer to the above question in the given space below. You cannot use pseudo instructions. Additionally, li/mult/div/mul instructions are not allowed.

Your response

jas Function medisan
sll t0 a0 a1beq t0 zero L1
sll t1 a1 a3
beq t1 zero else if
add vo a1 zero
jr ra
else if:
sll t2 a0 a3
beq t2 zero L1
add v0 a3 zero
jr ra
L1:
add v0 a0 zero
Exit

```
jas Function medisan
sll t0 a0 a1beq t0 zero L1
sll t1 a1 a3
beq t1 zero else if
add vo a1 zero
jr ra
else if:
sll t2 a0 a3
beq t2 zero L1
add v0 a3 zero
jr ra
L1:
add v0 a0 zero
Exit
```

Staff Grade NOT AVAILABLE

Waiting for a Staff Grade

Check back later to see if a course staff member has assessed your response. You will receive your grade after the assessment is complete.

Your Grade: Waiting for Assessments

Status

The grade for this problem is determined by your Staff Grade.

You have completed your steps in the assignment, but some assessments still need to be done on your response. When the assessments of your response are complete, you will see feedback from everyone who assessed your response, and you will receive your final grade.