COA

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LAB2

BRANCHING OPERATION:

Q NO 1: Take the 1st number from user.

Then take a number to do the operation. (1 corresponds to addition, 2 corresponds to subtraction, 3 for multiplication and 4 for division).

Then finally take a 2nd number from a user.

(use branching i.e **beq** and **j**).

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Enter a 1st number: 6
Enter a number to perform operation (1: Add, 2: Subtract, 3: Multiply, 4: Divide): 3
Enter a 2nd number: 7
Result: 42
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Q NO 2: Write a program that's show the bit position of a number is 0 or 1. (*Hint if number is 5 it is represented by 0101 show the 4th bit position is 0, similarly if the user enters 9 then the binary equivalent is 1001. In this case the 4th bit position is 1*).

Q NO 3: Now toggle the bit find in the previous task if the bit is 1 set it to 0 if it is 0 then set it to 1.

Q NO 4: Write a program to check a number entered by user is even or odd.

Q No 5: Show that shifting left of an even number by 1 position is a multiplication by 2 and shifting right of an even number by 1 position is a division by 2. (Hint: Use **sll** and **srl**).