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CSCI360

**Written Assignment 2**

**30 points**

This assignment is practice in reading a dump.

Use the resulting output from the given to answer the following questions:

1. (2 points) Did this error occur (a) while the program was being assembled or (b) when it was being run?

The error occurred while the program was being run.

1. (2 points) What is the address of the next instruction which will be executed?

000012

1. (2 points) What is the address of the instruction that caused the abend?

00000E

1. (2 points) What type of error occurred?

Specification Exception

1. (2 points) What actually causes this error?

It means that a D(B) or D(X,B) address resolved to a value that is not on the kind of boundary needed (fullword or halfword or doubleword) for the instruction involved.

1. (3 points) Correct the error by rewriting the section of code that caused it. (There are several correct ways to do this.)

THIRD DS F’00’

1. (2 points) What is the contents of register 7 in decimal?

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1. (2 points) What does the value in register 7 represent at the time of the ABEND?

It represents the result value of the register calculation.

1. (3 points) Why is the address (LOC column) of the storage area with the label FIRST on it at X'000024' when the branch statement before it whose address is X'000020' only takes up 2 bytes?

The data is only 2 bytes and storage consists of full words, so then the additional memory after those two bytes is used as slack bytes.

1. (2 points) What are the contents of the two bytes of user storage starting at address X'000022'? What do they represent?

The contents are F5F5 , which are slack bytes.

1. (3 points) What are the contents of the byte saved at address X'000030'? Does this byte represent the first byte of a full word?

The content of byte at address X’000030’ is the characters C3; and yes, this byte does represent the first byte of a full word, because it is defined.

1. (2 points) If we corrected the error in the program, what value would the storage area at label THIRD contain?

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X’00000175’

Essentially the sum of the two registers is stored here.

1. (2 points) If we corrected the error in the program, what value would the storage area at label RVALUE contain? Write the answer in hex.

The label RVALUE should contain 0 or X’00000000’

1. (1 point) Why do we not have XDUMP output?

There is no XDUMP output because the program ABEND’ed and never could execute the XDUMP command.