



Capital University of Science and Technology

Department of Computer Science

CS 2523 – Computer Organization and Assembly Language

QUIZ NO. 2: Instruction Cycle

CLO: 1. Define concepts in the design of microprocessor as state machine and designing its data path and its controller.

Semester: Summer 22

Max Marks: 10

Instructor: Ms. Tayyaba Zaheer

Date: August 17, 2022

Max Time: 10 Minutes

Name:

Reg. No.

Question No.1 [2.5 Marks]

Which of the following are the correct 5 Sub-operations of the control unit?

- Fetch, Load, ALU, Write, Store.
- Load, ALU, Store, Write, Execute.
- Fetch, Decode, Fetch Operands, Execute, Store.
- Load, Fetch, ALU, Write, Store.

Solution:

iii

Question No. 2 [2.5 Marks]

CPU has built-in ability to execute a particular set of machine instructions, called as _____

- Instruction Set
- Registers
- Sequence Set

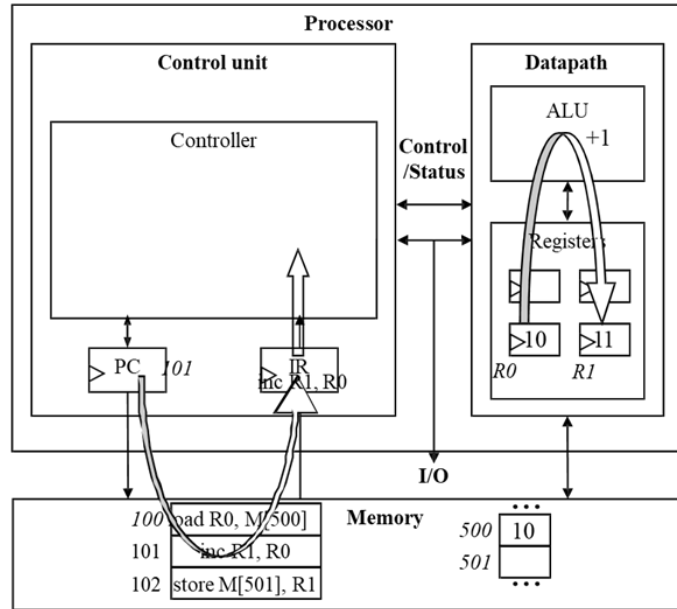
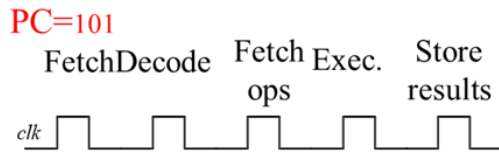
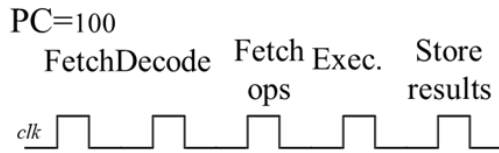
Solution:

i

Explanation: An instruction is any task which is to be performed by the processor. Instructions are stored in the register. Instruction set is the set of machine instructions.

Question No. 3 [05 Marks]

Elaborate 5 sub-operations of the control unit in the given scenario of Instruction Cycle:



Solution:

1.

2.

3.

4.

5.