**CPU Architecture Diagram**

MainMemory

CU

Special purpose registers

Program counter (PC)

Memory Address (MAR)

Memory Data (MDR)

Status Flags

Control Flags

Flags

ALU

General purpose registers

$R1

$R2

$R3

$R4

$R5

$R6

$R7

$R8

**Description –**

* Instruction Address (0 to 512)
* Data Address (512 to 65536 i.e. 2^16)
* General Purpose Registers- ($R1 to $R8) Data type used- integer array
* Special Purpose Registers- (MDR, MAR, PC) Data type used- integer variable
* Flags – Data Type used – character variable
* Instruction type (Immediate Instruction)-

Opcode destination Immediate Address