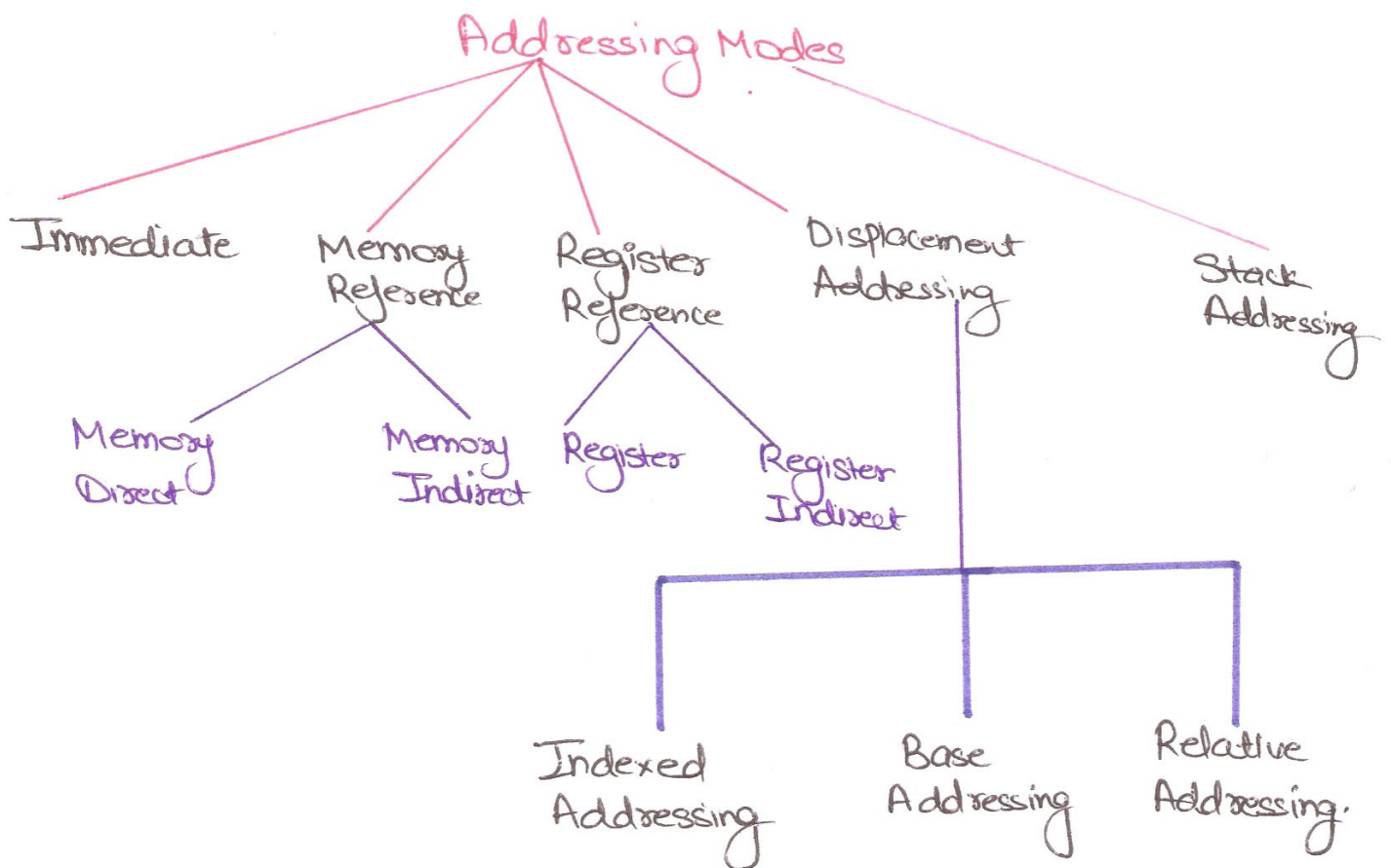


ISA :- ADDRESSING MODES

INTRODUCTION :-

Addressing Modes :- They are an aspect of the Instruction Set Architecture in most CPU designs.

An Addressing Mode specifies how to calculate the effective memory address of an Operand by using information held in registers and/or constants contained within a machine instruction or else where.



Common Addressing Modes

"Symbols for Addressing Modes"

The Symbols which we use in describing the Addressing Modes for Instruction Set Architecture :-

A, A1, A2... denote the content of an operand field. Thus, A_i may refer to a data or a memory address.

In case the operand field is a register address, then the symbols $R, R1, R2, \dots$ etc are used.

If C denotes the contents (either of an operand field or a register or of a memory location), then (C) denotes the content of the memory location whose address is C .

The symbol EA (Effective Address) refers to a physical address in a non-virtual memory environment and refers to a register in a virtual memory address environment.

The symbols D, D1, D2... etc refer to actual operands to be used by instructions for their execution.

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