

Tutorial - 1

CO

UGOCS100 - ADITYA RAJ

Page No.:

Date: / /

Ques 1) Discuss the advantage and disadvantages of diff. no. of Register & memory operands in the ISA design.

→ The two major reason are that:

① Registers are faster than memory, the more data that can be kept intentionally in the CPU the faster the program will run.

② Registers are easier for a compiler to use.

Ques 2) Discover the byte / word alignment for different machines:

→ char x // 1 byte
int y // 4 byte.

Q3) Find the byte ordering style of diff. machines

→ Byte order function —

① unsigned short h tons { unsigned short

hostshort) - The function convert 16-bit (2-byte) quantities from host byte order to network byte order.

(ii) unsigned long htonl (unsigned long hostlong) - The function convert 32-bit quantities from host byte order to network byte order.

Q4) Differentiate b/w RISC & CISC.

RISC	CISC
(i) It is a Reduced instruction set computer	(i) It is a Complex Instruction set comp.
(ii) The execution time of RISC is very short	(ii) The execution time of CISC is longer.
(iii) Eg - ARM, Alpha, Alpha2c	(iii) eg - VAX, AMD.

Q5) Enlist the number of register & their names used by the processor of general purpose computers like Intel i5 & how many registers.

→ 4 general registers

- i) AX
- ii) BX
- iii) CX
- iv) DX