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Dept : B.Sc in CSE

Course title : Computer Organization and Assembly Language

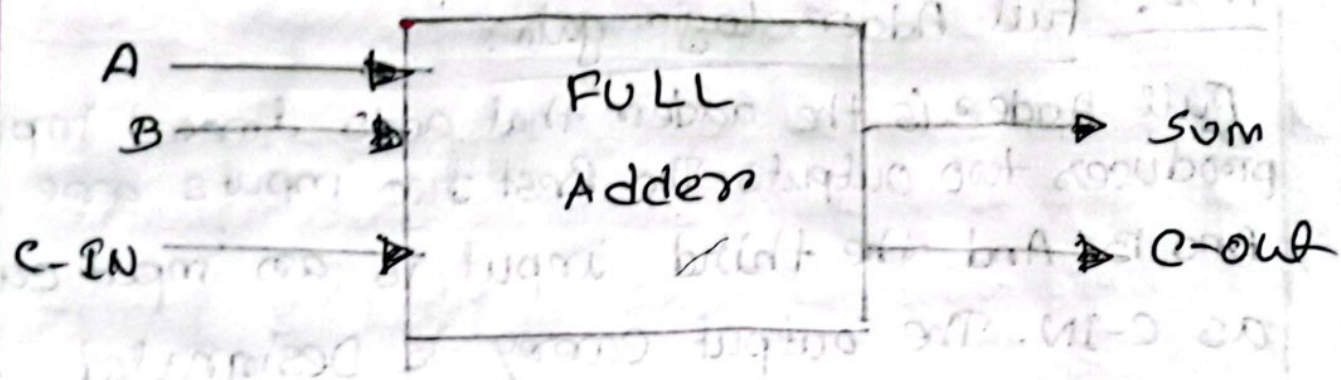
Course code : CSE - 233

Ans to the Qus No: 01 (a)

Ans: Full Adder logic gate:

Full Adder is the adder that adds three input and produces two outputs. The first two inputs are A a And B And the third input is an input carry as C-IN. The output carry is Designated as C-out and the Normal Output is designated as which is the sum. The C-output is also known as they majority 1 detector, whose output goes high when more then input together to Create a byte-wide adder and cascade the carry bit from one Adder and cascade the carry bit from one adde to Another we used a full adder. because when a carry in bit is available, mother 1-bit adder must be used. Sinee a-1 bit half adder does not take carry in bit. A 1 bit full adder there Operunds and generates 2 bit Result.

When the addition of two bainary degits is performed then sum is generated. if it consists of two binary degits is performed then Sum is generated.



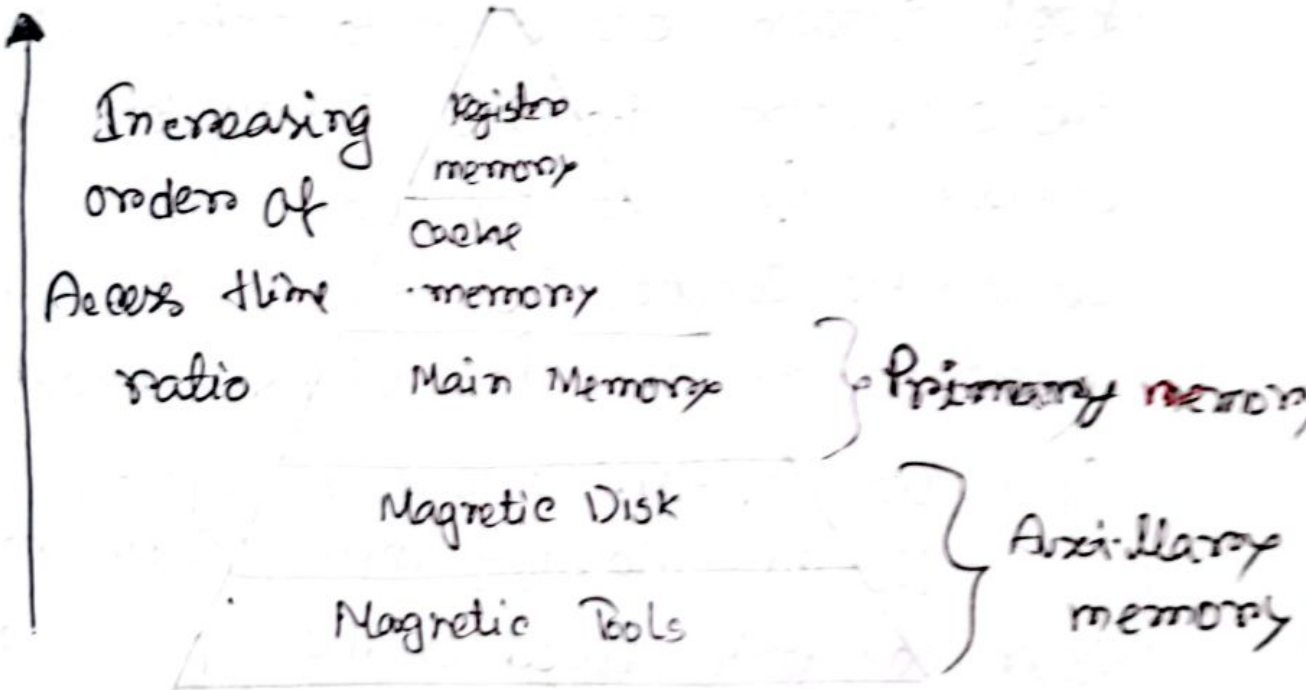
Full adder Truth table

INPUT			output	
A	B	C-IN	sum	C-out
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

Ans to the Qus NO: 02

Ans: Memory sub system organization:

The memory is dirided into calls, and each of them is identified by a unique number called an Address. When the cpu wants to reads or write an Address, it gererates control signals such as "read" and "write" which each call can identify.

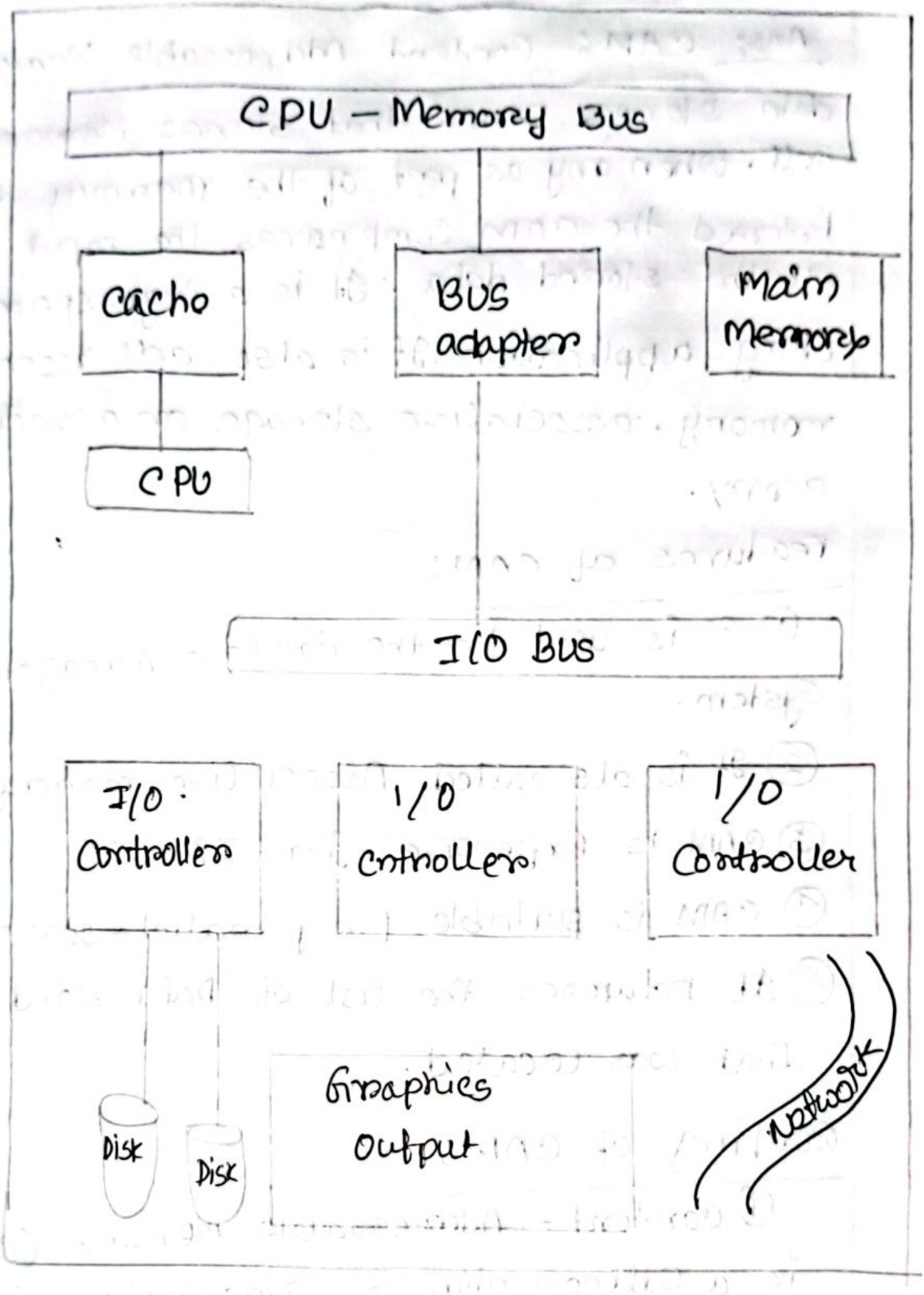


Ans to the Que No:03

Ans: A Model of I/O Subsystem Organization

Input and output (I/O) Devices Allow us to communicate with the computer system. I/O is the transfer of Data between primary Memory and various I/O peripherals. Input devices such as keyboard mice, card reader scanner, voice recognition Systems and tough Screen enable us to enter Data into the computer. The I/O Subsystem of a Computer provides efficient mode of Communicat between the Control System and the Outside Environment. Handles all the input-output Operation of the Computer System.

We can classify input/output ports into four categories based on the cpu's ability to read and write data at a given port address. These four categories are read-only ports write-only ports, read-/write ports and dual I/O ports.


CPU – Memory Bus
Cache
Bus adapter
Main Memory
CPU
I/O Bus
I/O Controllers
I/O Controllers
I/O Controller
Disk
Disk
Graphics Output
Network

Ans to the QUS' NO:04

Ans: CAM: Content Addressable Memory is data storage Device that stores Memory in cell. when any as peet of the memory is Entered the CAM Compraares the input with all the stored data. It is a high-speed sarching application. It is also cell associative memory. associative storage or associative arry.

Features of CAM:

(1) It is used in the database management System.

(2) It is als called Associative memory

(3) CAM is Expensive than RAM.

(4) CAM is suitable for parallel-search.

(5) It returnes the list of Data word addres that coas located.

Working of CAM:

(1) Content-Addressable memory (CAM) is a Silicon chip for amazingly quick yet

unmistable kinds of memory.

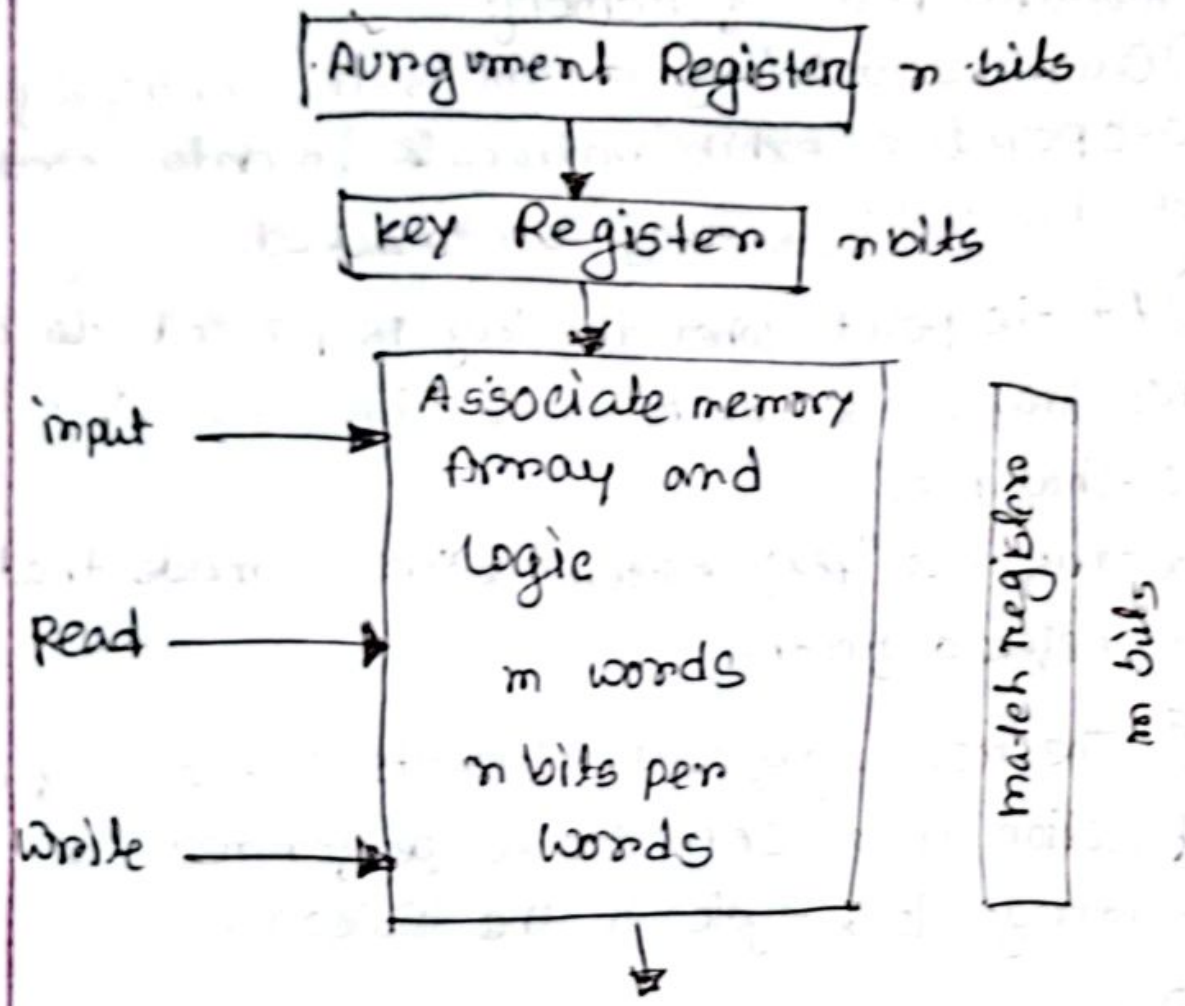
(2) Queries utilizing a CAM is theoretically like co-operative exhibitrationale in data structures yet the yield is very streamlined.

(3) At the point when the key is paused to a CAM sub framwork. It restores the related incentive to that key.

Because, a "key > esteem" pair is made that can be refereed further.

(4) The most significant elements is there of query of section in a CAM can be performed in a solitary clock cycle in the Silicon.

(5) A RAM Module that requirements various clock cycles to make a solitary memory brings a CAM cell in the chip that comprises two SRAM Cells.



"Content-addressable memory"