AMIE NBCAFE Study Notes

What is Interrupt and how it is worked in microprocessor 8085?

Hi friend here i write about what is Interrupt and how it is worked in microprocessor 8085? I write the answer like that which will defiantly clear your doubts.

What is Interrupt?

In very simple sense interrupt in microprocessor 8085 means "order to do new work with pausing its running work". I think this sentence "order to do new work with pausing its running work" is bit confusing. Let I give you an example to ease the matter. In other word we can say "Interrupt is a mechanism by which the processor is made to transfer control from its current Program execution to another program of higher priority." Interrupt may be generated in the system by externally or internally.

Now to understand the second question how it is worked in microprocessor 8085? We have to understand

What is a ISR (Interrupt Service routine)?

When processor gets any interrupt signal then it will stop executing the present work and start to process new work with high priority. The program or routine that is executed with pausing initial work is called ISR (Interrupt Service routine).

Process of interrupt with proper example:

Step 1 . Let take real example and relate it with microprocessor operation. You are seating on a chair read a very interesting story book which you like / in microprocessor let processor doing program of arrange ascending order of 1000 number.

Step2 . Now you heard the telephone ring / in microprocessor now let it got request of interrupt means it get INTR (Interrupt Request) signal.

Step 3 . You pick-up the phone and say hello / in microprocessor send acknowledgement of getting interrupt request to send INTA (Interrupt Acknowledgement).

Step 4 . You heard that your friend told you please shutdown the main door because it is open / in microprocessor you got the ISR (Interrupt service routine where the order of new work is written).

Step 5 . Now you put a page pointer between the pages which you read / in microprocessor it stores the address of current running program, where it interrupted, in stack pointer register.

Step 6 . Now you go there and shutdown the main door and return back to your chair and start reading the story book from where i put the page pointer. / in microprocessor now it process the ISR and after completion of work It pull the stored address of main programmed from stack and execute again.

So in above mansion steps, from which you may get the clear picture of how Interrupt is processed in microprocessor 8085. If you have any doubt please ask me at comment on this post.