



Created by

ARSLAN AHMED SHAAD (1163135)

AND

MUHAMMAD BILAL (1163122)

VISIT : www.vbforstudent.com

Also visit : www.techo786.wordpress.com

For more notes of DAE

CHAPTER # 9

8-Bit Support Devices

COURSE OUTLINE QUESTIONS

Q_{no1} Describe 8088/86 Support device?

All device use to provide interface between microprocessor and I/O device to input and output data either with controlled signals or without control signal.

Q_{no2} Describe General Purpose Support device?

All interfacing device transfer (input or output) data to or from I/O device without controlled signal is called general purpose supporting device .

Q_{no3} Describe Programmable Support Device?

All device used to provide interface to I/O device to transfer (I/P or O/P) data with control signal between I/O port is called programmable support device.

Q_{no4} Explain the Operation and Programming of Intel 8255 Programmable

Peripheral Interface.

8255 programmable peripheral interface (PPI)

The 8255 programmable peripheral interface consist of (3*6) bit three I/O port , port A ,port B, port C. the port C is divided into two parts lower four bit are used to provide handshake signal to port A and upper four bits are used to provide handshaking signal port B

Operation:

The CS pin is enabled through address decoder circuits. The address line A₀ and A₁ are used to select port A₀ A₁; 00=port A, 01=port B, 10=port C, 11=controlword. When the address select the specified part. The RD signal is

used to read data from I/O device to system and WR signal is used to write data from system to I/O device. When data transfer is completed the CS line by system through address decoder.

Programming 8255 PPI device:

The 8255 PPI device can be programmed in three modes

Mode 0: in mode 0 all ports are used as general purpose support device part A, part B and part C as input or output.

Mode 1: in mode 1 port A and port B can be programmed as input or output on the base of handshaking principal. When port C is used to provide control signal to port A and port B

Mode 2: in the mode 2 the port A is programmed as input/output port on handshaking principal. The part C is used to provide controlling signal during operation.