

Q1. The 8255 operates in 2 modes. Answer the following w.r.t 8255 modes.

1. Which bit of control word register is responsible for mode selection.
2. Role of D5 and D6 of CWR
3. Value of CWR for setting PC3
4. Value of D3, D2, D1 to select PC4
5. Value of D3, D2, D1 to select PC2

Ans.

1. D7 bit of control word register is responsible for mode selection.
2. D5, D6 are used for mode selection for group A (Upper Port C and Port A).

D5	D6	Mode
0	0	0
0	1	1
1	X	2

3. Value of CWR for setting PC3 is 07H

4. Value of D3 = 1
D2 = 0
D1 = 0 to select PC4

5. Value of D3 = 0, D2 = 1, D1 = 0 to select PC2

Q2. Find the values of CS, A₁, A₀ in 8255 for the following cases :

1. Port A selection
2. Port B selection
3. Port C selection
4. Control Register selection.

	CS	A ₀	A ₁	Address
Ans. Port A selection	0	0	0	80H
Port B selection	0	0	1	81H
Port C selection	0	1	0	82H
Control Register Selection	0	1	1	83H
No selection	1	X	X	X