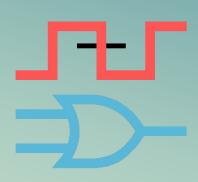
Digital Electronics

Class X lab 20







Enecoder

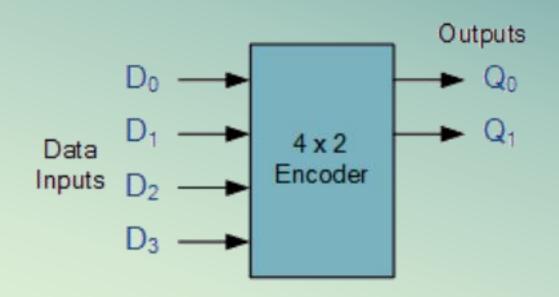


combinational circuit that performs the reverse operation of Decoder





Inputs and Outputs for Encoder

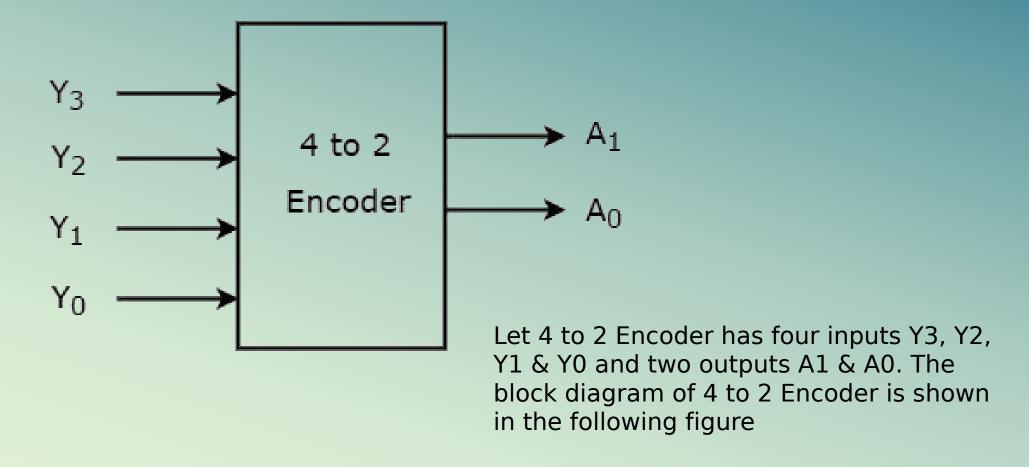


| | Inp | Outputs | | | |
|----------------|-------|---------|----------------|----------------|----------------|
| D ₃ | D_2 | D_1 | D ₀ | Q ₁ | Q ₀ |
| 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | Х | X |
| | | | | | |





4 to 2 Encoder







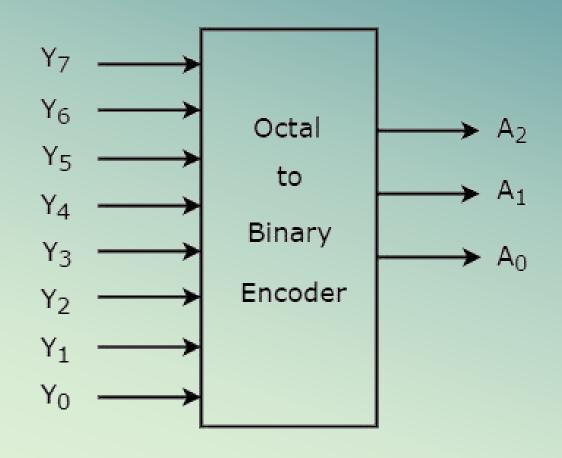
Truth table of 4 to 2 Encoder

| | Inp | Outputs | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|
| \mathbf{Y}_3 | \mathbf{Y}_2 | \mathbf{Y}_1 | \mathbf{Y}_0 | \mathbf{A}_1 | \mathbf{A}_0 |
| 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 1 | 0 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 |





Octal to Binary Encoder



8 inputs and 3 outputs









