

Cvičenie 3/8

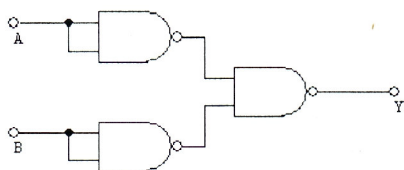
Číslicové integrované obvody IV

Úloha :

1. Navrhnete 10 rôznych zapojení s číslicovými IO (min. 3 hradlá).
2. Určíte možnosti vstupných a výstupných úrovní.
3. Realizujte zapojenia a overte pravdivosť predpokladu.

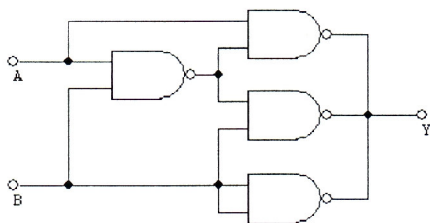
Schémy zapojení :

1.



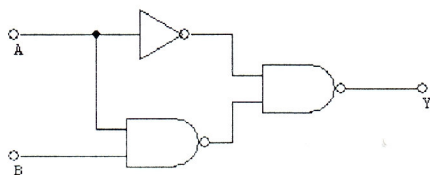
| A | B | Y |
|---|---|---|
| L | L | L |
| L | H | H |
| H | L | H |
| H | H | H |

2.



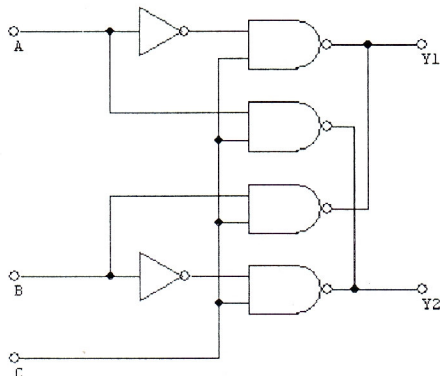
| A | B | Y |
|---|---|---|
| L | L | H |
| L | H | H |
| H | L | H |
| H | H | L |

3.



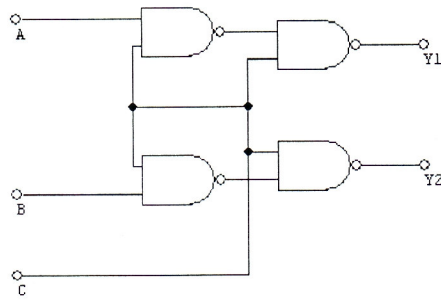
| A | B | Y |
|---|---|---|
| L | L | L |
| L | H | L |
| H | L | H |
| H | H | H |

4.



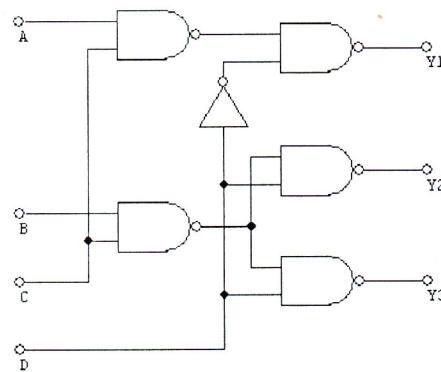
| A | B | C | Y ₁ | Y ₂ |
|---|---|---|----------------|----------------|
| L | L | L | H | H |
| L | H | L | H | H |
| H | L | L | H | H |
| H | H | L | H | H |
| L | L | H | H | H |
| L | H | H | L | H |
| H | L | H | H | L |
| H | H | H | H | H |

5.



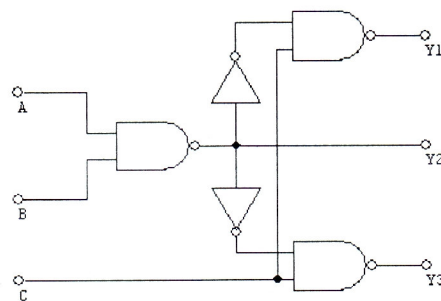
| A | B | C | Y ₁ | Y ₂ |
|---|---|---|----------------|----------------|
| L | L | L | H | H |
| L | H | L | H | H |
| H | L | L | H | H |
| H | H | L | H | H |
| L | L | H | L | L |
| L | H | H | L | H |
| H | L | H | H | L |
| H | H | H | H | H |

6.



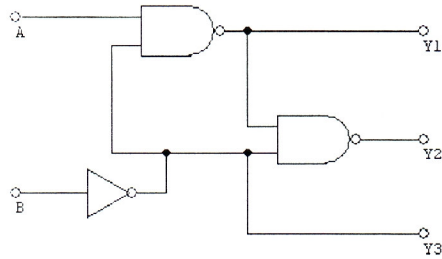
| A | B | C | D | Y ₁ | Y ₂ | Y ₃ |
|---|---|---|---|----------------|----------------|----------------|
| L | L | L | L | L | H | H |
| L | H | L | L | L | H | H |
| H | L | L | L | L | H | H |
| H | H | L | L | L | H | H |
| L | L | H | L | L | H | H |
| L | H | H | L | L | H | H |
| H | L | H | L | H | H | H |
| H | H | H | L | H | H | H |
| L | L | L | H | H | L | L |
| L | H | L | H | H | L | L |
| H | L | L | H | H | L | L |
| H | H | L | H | H | L | L |
| L | L | H | H | H | L | L |
| L | H | H | H | H | H | H |
| H | L | H | H | H | L | L |
| H | H | H | H | H | H | H |

7.



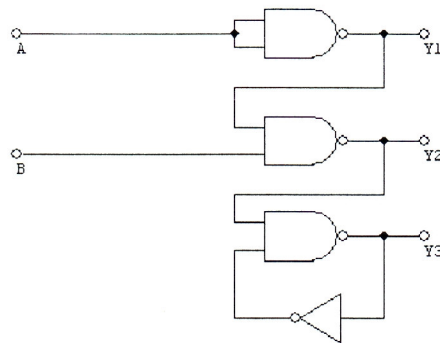
| A | B | C | Y ₁ | Y ₂ | Y ₃ |
|---|---|---|----------------|----------------|----------------|
| L | L | L | H | H | H |
| L | H | L | H | H | H |
| H | L | L | H | H | H |
| H | H | L | H | L | H |
| L | L | H | H | H | H |
| L | H | H | H | H | H |
| H | L | H | H | H | H |
| H | H | H | L | L | L |

8.



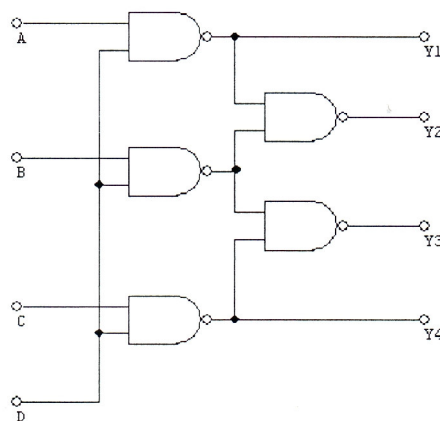
| A | B | Y ₁ | Y ₂ | Y ₃ |
|---|---|----------------|----------------|----------------|
| L | L | H | L | H |
| L | H | H | H | L |
| H | L | L | H | H |
| H | H | H | H | L |

9.



| A | B | Y ₁ | Y ₂ | Y ₃ |
|---|---|----------------|----------------|----------------|
| L | L | H | H | L |
| L | H | H | L | H |
| H | L | L | H | L |
| H | H | L | H | H |
| L | L | H | H | H |

10.



| A | B | C | D | Y ₁ | Y ₂ | Y ₃ | Y ₄ |
|---|---|---|---|----------------|----------------|----------------|----------------|
| X | X | X | L | H | L | L | H |
| L | L | L | H | H | L | L | H |
| L | H | L | H | H | H | H | H |
| H | L | L | H | L | H | L | H |
| H | H | L | H | L | H | H | H |
| L | L | H | H | H | L | H | L |
| L | H | H | H | H | H | H | L |
| H | L | H | H | L | H | H | L |
| H | H | H | H | L | H | H | L |