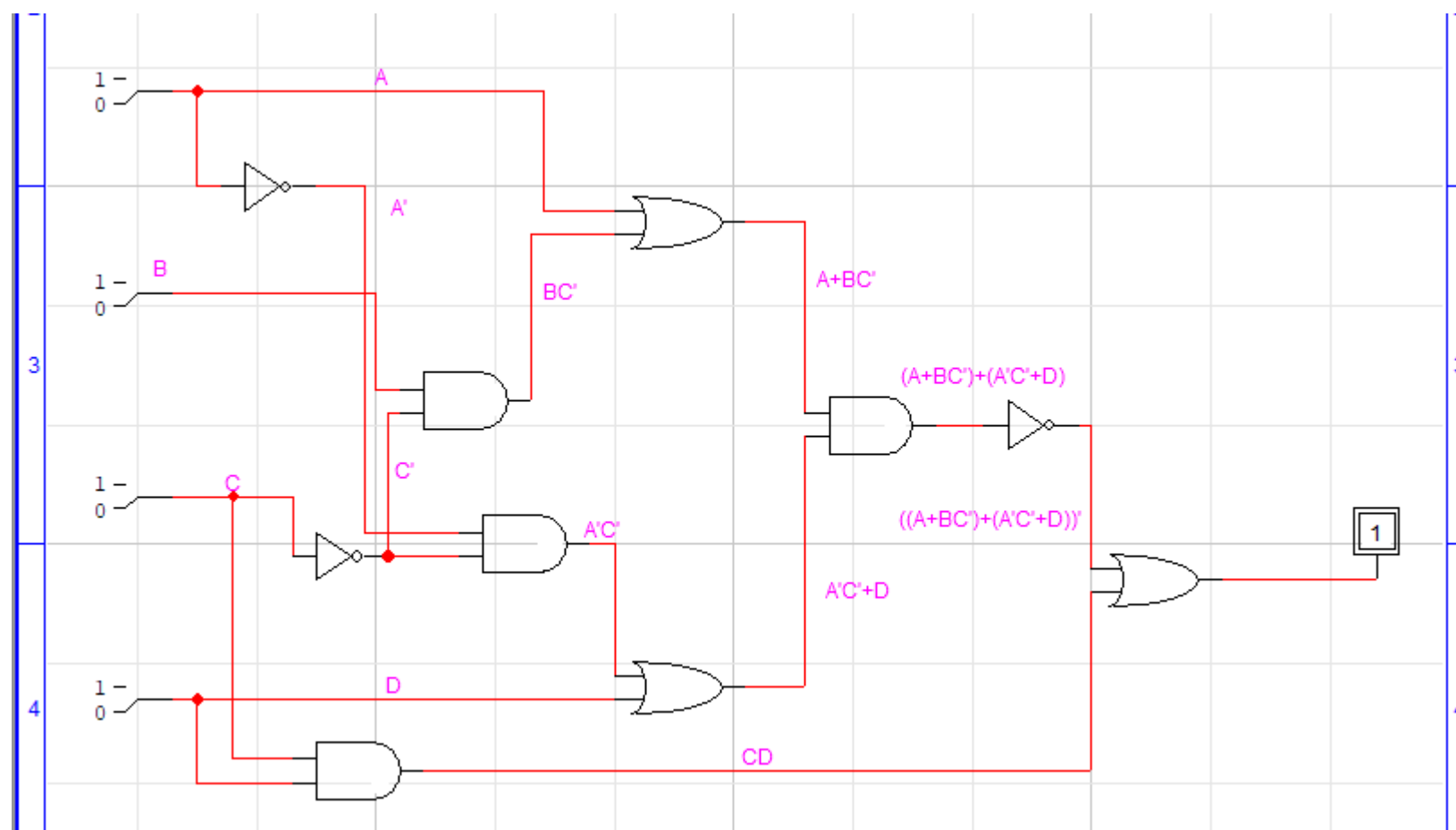
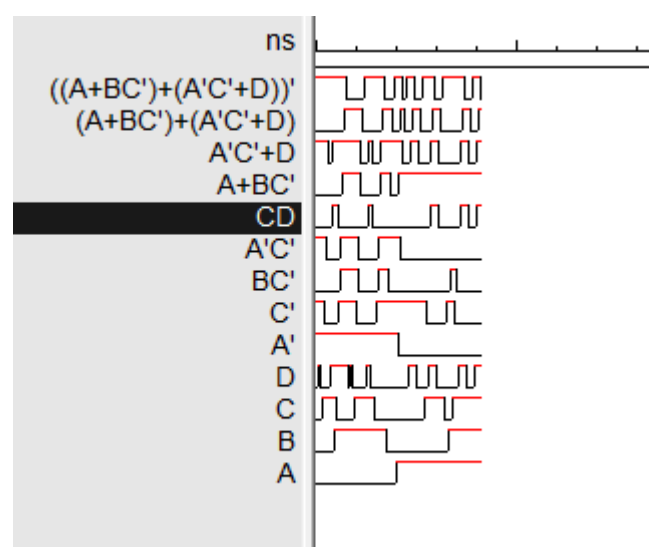


Question:01

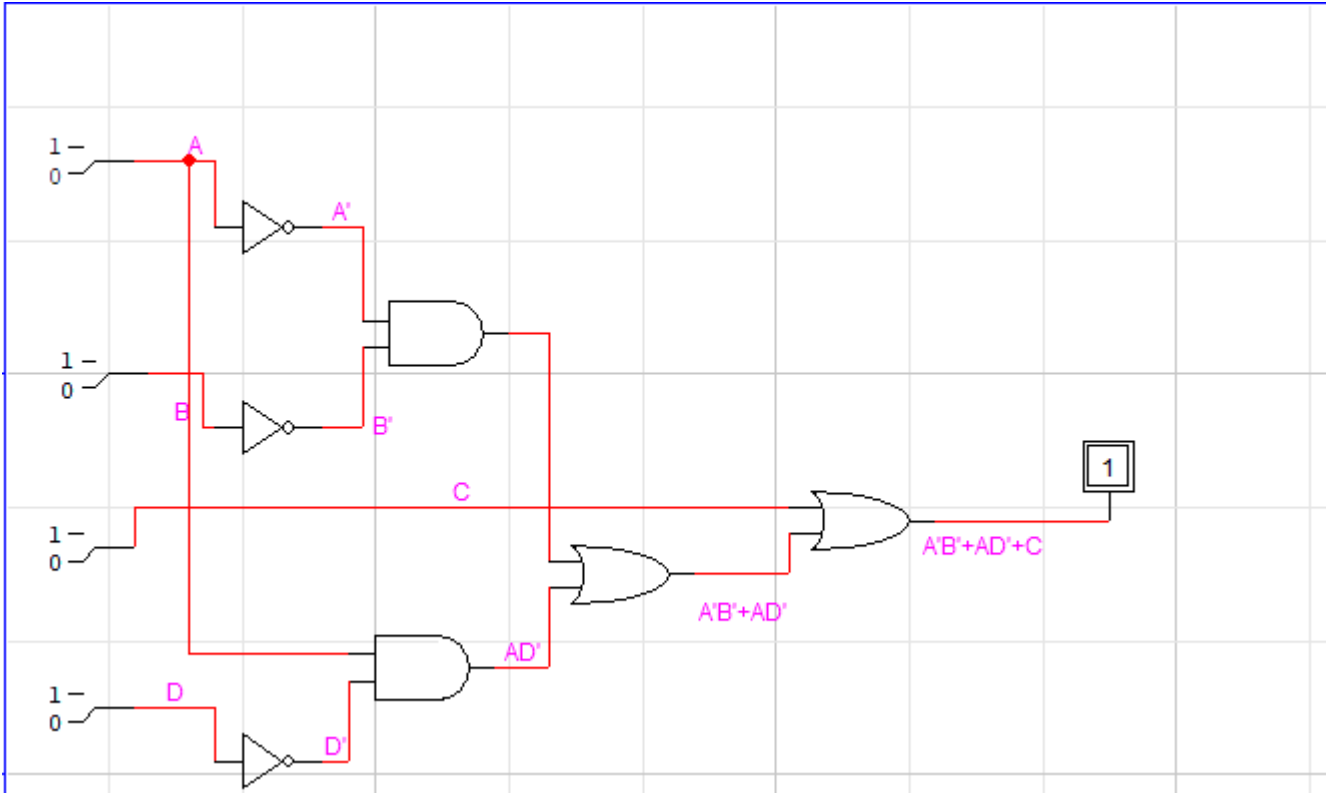


Truth Table:

| A | B | C | D | C' | BC' | A+BC' | A' | A'C' | D+A'C' | (A+BC')(D+A'C') | (A+BC')(D+A'C')' | CD | (A+BC')(D+A'C')'+CD |
|---|---|---|---|----|-----|-------|----|------|--------|-----------------|------------------|----|---------------------|
| 0 | 0 | 0 | 0 | 1  | 0   | 0     | 1  | 1    | 1      | 0               | 1                | 0  | 1                   |
| 0 | 0 | 0 | 1 | 1  | 0   | 0     | 1  | 1    | 1      | 0               | 1                | 0  | 1                   |
| 0 | 0 | 1 | 0 | 0  | 0   | 0     | 1  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 0 | 0 | 1 | 1 | 0  | 0   | 0     | 1  | 0    | 1      | 0               | 1                | 1  | 1                   |
| 0 | 1 | 0 | 0 | 1  | 1   | 1     | 1  | 1    | 1      | 1               | 0                | 0  | 0                   |
| 0 | 1 | 0 | 1 | 1  | 1   | 1     | 1  | 1    | 1      | 1               | 0                | 0  | 0                   |
| 0 | 1 | 1 | 0 | 0  | 0   | 0     | 1  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 0 | 1 | 1 | 1 | 0  | 0   | 0     | 1  | 0    | 1      | 0               | 1                | 1  | 1                   |
| 1 | 0 | 0 | 0 | 1  | 0   | 1     | 0  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 1 | 0 | 0 | 1 | 1  | 0   | 1     | 0  | 0    | 1      | 1               | 0                | 0  | 0                   |
| 1 | 0 | 1 | 0 | 0  | 0   | 1     | 0  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 1 | 0 | 1 | 1 | 0  | 0   | 1     | 0  | 0    | 1      | 1               | 0                | 1  | 1                   |
| 1 | 1 | 0 | 0 | 1  | 1   | 1     | 0  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 1 | 1 | 0 | 1 | 1  | 1   | 1     | 0  | 0    | 1      | 1               | 0                | 0  | 0                   |
| 1 | 1 | 1 | 0 | 0  | 0   | 1     | 0  | 0    | 0      | 0               | 1                | 0  | 1                   |
| 1 | 1 | 1 | 1 | 0  | 0   | 1     | 0  | 0    | 1      | 1               | 0                | 1  | 1                   |



Question:02



Truth Table:

| A | B | C | D | A' | B' | D' | A'B' | AD' | A'B'+AD' | A'B'+AD'+C |
|---|---|---|---|----|----|----|------|-----|----------|------------|
| 0 | 0 | 0 | 0 | 1  | 1  | 1  | 1    | 0   | 1        | 1          |
| 0 | 0 | 0 | 1 | 1  | 1  | 0  | 1    | 0   | 1        | 1          |
| 0 | 0 | 1 | 0 | 1  | 1  | 1  | 1    | 0   | 1        | 1          |
| 0 | 0 | 1 | 1 | 1  | 1  | 0  | 1    | 0   | 1        | 1          |
| 0 | 1 | 0 | 0 | 1  | 0  | 1  | 0    | 0   | 0        | 0          |
| 0 | 1 | 0 | 1 | 1  | 0  | 0  | 0    | 0   | 0        | 0          |
| 0 | 1 | 1 | 0 | 1  | 0  | 1  | 0    | 0   | 0        | 1          |
| 0 | 1 | 1 | 1 | 1  | 0  | 0  | 0    | 0   | 0        | 1          |
| 1 | 0 | 0 | 0 | 0  | 1  | 1  | 0    | 1   | 1        | 1          |
| 1 | 0 | 0 | 1 | 0  | 1  | 0  | 0    | 0   | 0        | 0          |
| 1 | 0 | 1 | 0 | 0  | 1  | 1  | 0    | 1   | 1        | 1          |
| 1 | 0 | 1 | 1 | 0  | 1  | 0  | 0    | 0   | 0        | 1          |
| 1 | 1 | 0 | 0 | 0  | 0  | 1  | 0    | 1   | 1        | 1          |
| 1 | 1 | 0 | 1 | 0  | 0  | 0  | 0    | 0   | 0        | 0          |
| 1 | 1 | 1 | 0 | 0  | 0  | 1  | 0    | 1   | 1        | 1          |
| 1 | 1 | 1 | 1 | 0  | 0  | 0  | 0    | 0   | 0        | 1          |

