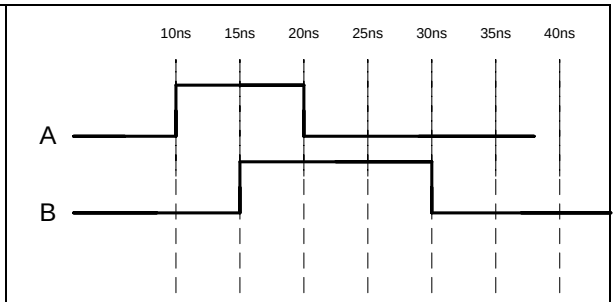
Shahid Beheshti University
Faculty of Computer Science and Engineering

Computer Aided Digital System Design
Homework No.١

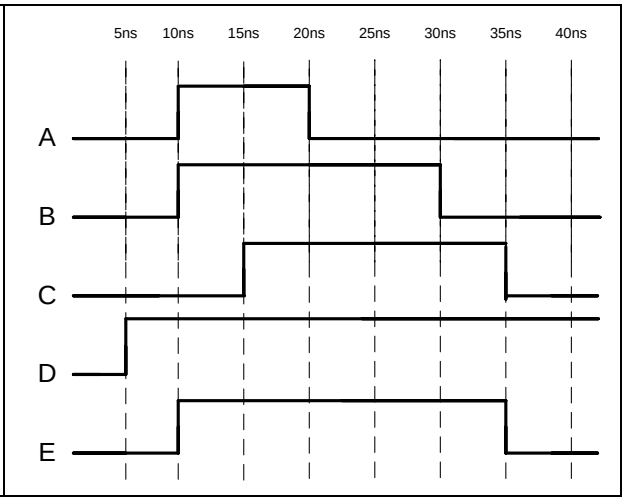
١. Sketch the waveform of the output and internal signals.

```
ENTITY excercise١ IS
    PORT ( a, b : IN  bit;
           y    : OUT bit);
END test;
ARCHITECTURE test OF excercise١ IS
    SIGNAL n١ : bit;
BEGIN
    n١ <= NOT b AFTER ٢ ns;
    y <= a AND n١ AFTER ٣ ns;
END test;
```



٢. Sketch the waveform of the output and internal signals.

```
ENTITY excercise١ IS
    PORT ( a, b, c, d, e : IN  bit;
           y             : OUT bit);
END test;
ARCHITECTURE test OF excercise١ IS
    SIGNAL n١, n٢, n٣ : bit;
BEGIN
    n١ <= a AND b;
    n٢ <= d AND e;
    n٣ <= n١ OR c AFTER ٤ ns;
    y <= n٣ XOR n٢ AFTER ١ ns;
```



٣. Sketch the waveform of the output and internal signals.

```
ENTITY excercise٢ IS END test;
ARCHITECTURE test OF excercise٢ IS
    SIGNAL y : bit;
BEGIN
    y <= NOT y AFTER ٢ ns;
END test;
```

٤. Sketch the waveform of the output and internal signals.

```
ENTITY excercise٢ IS END test;
ARCHITECTURE test OF excercise٢ IS
    SIGNAL y : bit;
BEGIN
    y <= NOT y;
END test;
```

Ali Jahanian