**Assignment**

**Date 29\_10\_25**

**Write a scoreboard for below scenario -**

Data\_in is input packet port and from port0 and port1 packet comes out.

In the packet data and destination port names are mentioned and based on this router send packets to port 0 or 1.

Here packet size is 32 bits. Where, data width of data 30 bits and destination port is of 2 bits.

**Packet Format:**

**31………………………………………………………2 1….……………………………………………………………..0**

|  |  |
| --- | --- |
| Data (30) | Destination port (2) |

**Destination Port** =00: port0 is selected as output port.

DUT

Reset

clk

Port1

Port0

Data\_in

01: Port1 is selected as output port.

**Design block**