

Name:- J. Iqbal Javid
Reg No:- 4288-FBAS/BSCS4/F20
Subject:- Computer Networks
Submitted to:- Sir Qaiser Javid
Date:- 03/12/2022

Assignment No. 3:-

Q1:- What is root port and its selection criteria?
Root Port:-

It is a single selected port that has a lowest path cost to the Root Bridge. The Root port on the switch is the port with the lowest spanning tree path cost from switch to the bridge.

Selection Criteria:-

Root port selection is based on the port having lowest cost to the Root Bridge. For PVST (per VLAN spanning Tree) path cost will depend on bandwidth of links.

Q2:- Define designated port and its selection criteria?

Designated Port:-

There can be only one root port on a switch, but a switch can have multiple designated ports. It is a port that has a lowest path cost on a particular LAN segment. Each segment has a single port that is used to reach the root bridge called designated port. A root port can never be a designated port.

(2)

Selection Criteria:-

They are selected on a per-segment basis, based on the cost of each port on either side of the segment and total cost calculated by STP for that port to get back to the bridge.

If one end of a segment is root port, then the other end is a designated port.

Q3:- What is non-designated port?

Non-Designated port:-

It is a port that is selected on having the higher port cost than the designated port. Non-Designated port would be marked as blocking port and will not forward any frame.

Selection Criteria:-

It is selected as having the higher cost than a designated port. If there is any change in topology of the network, the non-designated port may become a designated port.

Q4:- What is root Bridge?

Root Bridge:-

A Root Bridge is a reference point for all switches in a spanning tree topology.

The root Bridge is a special bridge at top of spanning tree. The branches (Ethernet connections) are the branched out from the root switch, connecting to other switches in the Local Area Network (LAN).

==