**EXPERIMENT-9**

**Link State Vector Routing protocol**

**Aim:** Configure Network using Link State Vector Routing protocol.

* OSPF

**Apparatus (Software):** Packet Tracer Software/GNS3

**Theory:** Open Shortest Path First (OSPF) is a link-state routing protocol for Internet Protocol (IP) networks. It uses a link state routing algorithm and falls into the group of interior routing protocols, operating within a single autonomous system (AS). It is defined as OSPF Version 2 in RFC 2328 (1998) for IPv4. The updates for IPv6 are specified as OSPF Version 3 in RFC 5340(2008).

OSPF is perhaps the most widely used interior gateway protocol (IGP) in large enterprise networks. IS-IS, another link-state dynamic routing protocol, is more common in large service provider networks. The most widely used exterior gateway protocol is the Border Gateway Protocol (BGP), the principal routing protocol between autonomous systems on the Internet.

**Procedure:**

* Develop a Topology shown in figure given below.
* Configure all the workstations
* Configure all switches
* Configure all Routers
* Implement OSPF protocols in Router to configure Network.





