**DV162\_12\_PAS ON Software Defined Networking**

**Possible Answer Sheet**

1. What is Software Defined Networking (SDN)?  
Ans: SDN is an approach to networking that utilizes a software-based platform, which can be deployed in the cloud. With SDN, traditional networking devices such as routers, switches, and firewalls are transformed into a software platform. The functions of these devices are separated into individual pieces, and a software version based on these pieces is created. This software version can then be deployed and run in the cloud.

2. What are Computer Networking Planes?  
Ans: Computer Networking Planes refers to conceptual layers of network operations and management. Computer Networking Planes consist of three layers i.e  
 -Data Plane  
 -Control Plane  
 -Management Plane

3. What is Data Plane?  
Ans: Data Plane is also known as Infrastructural Layer, and is responsible for the forwarding, the trucking, the encrypting, the network address translation and anything else that needs to occur at the packet level.

4. What is Control Plane?  
Ans: Control Plane is also known as Control Layer, and is responsible for providing the reference table for traffic to Data Plane.  
When routers or switches need to forward the traffic in the data plane they need some type of reference to know where the traffic is going, those references will be in the control plane. i.e Forwarding Table in a Switch and Network Address Translation Table in a router.

5. What is Management Plane?  
Ans: It is also known as Application Layer, and is responsible for making Console SSH able to manage the devices (Control Panel and Data Panel). We can access or login the device via API (Application Programming Interface).

6. What is Software Defined Networking Controller (SDN Controller)?  
Ans: SDN Controller is a Centralized Software Application that manages and controls the network devices.

7. What is Distributed Control Planes?  
Ans: Distributed Control Planes refers to a decentralized approach to manage and control the devices.

8. What is Controller Based Networking?  
Ans: Controller Based Networking refers to the approach in which centralized software application is used to manage and control the devices.

9. What is a Routed Port?  
Ans: A Routed Port is a physical port that acts similar to an interface on a router (or Layer 3 Switch). Routed Port is not associated with any particular VLAN. It forwards traffic based on IP addresses.

10. What is OpenFlow?  
Ans: OpenFlow is a Protocol that enables the communication between SDN Controller and (Forwarding devices: Switch or Routers) Devices in the network. This protocol allows the controller to control and manage the devices.