**Part A – Analytical Sections**

**1. WAN Design**

Select the WAN Topology

Determine the source and destination of traffic to travel across the WAN

Choose suitable technology for each link

For each pair of end points analyze traffic

Estimate the required Bandwidth for each WAN Link

Estimate installation and operation Costs, Evaluate

**2. Network Address Translation**

|  |  |  |
| --- | --- | --- |
| **Inside Local IP Address** | **Inside Global IP Address** | **Outside Global IP Address** |
| 192.168.3.1 | 201.200.20.17 | 181.180.180.15 |
| 192.168.3.2 | 201.200.20.18 | 181.180.180.15 |

**3. VLAN Operation**

|  |  |
| --- | --- |
| Steps | Devices |
| 1 | Switch A |
| 2 | B, C, C2, Switch B |
| 3 | D, E, F, F2, Switch C |
| 4 | G, H, I, I2 |
| 5 | Switch B, Switch A |
| 6 | No Path Found |

**4. Part of AHIC network – Find the Cable**

|  |  |  |
| --- | --- | --- |
| Link | Connection Between | Cable Type |
| 1 | CertKillerB PC to Certkiller3 Switch | Straight-through Cable (Cat 5 or 6) |
| 2 | Certkiller3 Switch to Certkiller3 Router | Straight-through Cable  (Cat 5 or 6) |
| 3 | Certkiller3 Router to Certkiller4 Router | Serial (WAN Connection) |
| 4 | Certkiller1 Router to PC | Straight-through Cable (Cat 5 or 6) |

**5. Match the Commands**

|  |  |
| --- | --- |
| Definitions | Commands |
| Displays IP or MAC Address mapping on a windows PC | arp -a |
| Test VTY configuration | telnet |
| Display PC Network configuration | ipconfig/all |
| Test TCP/IP protocol Stack | Ping 127.0.0.1 |
| Display the list of routers on a path to a network destination | tracert |