**Exam Objective:**

Design and configure a network where two separate LANs, each containing a switch and two PCs, are connected via two routers. Implement static routing to enable full connectivity between all devices across the two LANs.

**IP Addressing Scheme:**

* **LAN 1 (Connected to Router1):**
  + Network: 192.168.10.0/24
  + Router1 (LAN Interface): 192.168.10.1
  + PC1: 192.168.10.2
  + PC2: 192.168.10.3
* **LAN 2 (Connected to Router2):**
  + Network: 192.168.20.0/24
  + Router2 (LAN Interface): 192.168.20.1
  + PC3: 192.168.20.2
  + PC4: 192.168.20.3
* **Router Interconnection:**
  + Network: 10.0.0.0/30
  + Router1 (Serial Interface): 10.0.0.1
  + Router2 (Serial Interface): 10.0.0.2

**Tasks:**

1. **Device Configuration:**
   * Assign appropriate device names to all routers and switches.
   * Configure IP addresses on all router interfaces as per the IP addressing scheme.
   * Ensure all interfaces are activated.
2. **PC Configuration:**
   * Assign IP addresses and subnet masks to all PCs.
   * Set the default gateway on each PC to point to the LAN interface of the connected router.
3. **Static Routing:**
   * On Router1, configure a static route to the 192.168.20.0/24 network via the 10.0.0.2 next-hop address.
   * On Router2, configure a static route to the 192.168.10.0/24 network via the 10.0.0.1 next-hop address.
4. **Connectivity Testing:**
   * From PC1, ping PC3 to verify connectivity.
   * From PC2, ping PC4 to verify connectivity.
   * If pings are unsuccessful, utilize troubleshooting commands such as ping and tracert to identify and resolve issues.

**Submission Requirements:**

* A Packet Tracer file (.pkt) with the completed network configuration.
* A brief report detailing the configuration steps taken, any challenges encountered, and how they were resolved.

**Assessment Criteria:**

* Correctness of device configurations and IP addressing.
* Proper implementation of static routing.
* Successful end-to-end connectivity between PCs in different LANs.
* Clarity and thoroughness of the accompanying report.

**Additional Resources:**

* For guidance on configuring static routes, refer to Cisco's official documentation or relevant networking textbooks.
* Ensure to save your Packet Tracer project frequently to avoid loss of work.