**IPv4 Static and Default Routes**

**Part 2: Configure Basic Device Settings and Verify Connectivity**

1. **Config the PC interfaces**
2. **Config basic settings on the routers**
3. **Config IP settings on the routers**
   * 1. Configure the R1 and R3 interfaces with IP addresses according to the Addressing Table.
     2. The S0/0/0 connection is the DCE connection and requires the **clock rate** command. The R3 S0/0/0 configuration is displayed below.

R3(config)# **interface s0/0/0**

R3(config-if)# **ip address 10.1.1.2 255.255.255.252**

R3(config-if)# **clock rate 128000**

R3(config-if)# **no shutdown**

**Part 3: Configure Static Routes**

1. **Config a recursive static route**

Router(config)# **ip route** *network-address* | *subnet-mask* | *ip-address of nearest gateway of the other route*

R1(config)# **ip route 192.168.1.0 255.255.255.0 10.1.1.2**

1. **Config a directly connected static route**

Router(config)# **ip route** *network-address* *subnet-mask* *exit-intf*

R3(config)# **ip route 192.168.0.0 255.255.255.0 s0/0/0**

1. **Config a static route**
2. **Remove static routes for loopback addresses**

R1(config)# **no ip route 209.165.200.224 255.255.255.224 serial0/0/1**

or

R1(config)# **no ip route 209.165.200.224 255.255.255.224 10.1.1.2**

or

R1(config)# **no ip route 209.165.200.224 255.255.255.224**

**Part 4: Config and Verify a Default Route**

A default route identifies the gateway to which the router sends all IP packets for which it does not have a learned or static route. A default static route is a static route with 0.0.0.0 as the destination IP address and subnet mask. This is commonly referred to as a “quad zero” route.

In a default route, either the next-hop IP address or exit interface can be specified. To configure a default static route, use the following syntax:

Router(config)# **ip route 0.0.0.0 0.0.0.0** {*ip-address or exit-intf*}

R1(config)# **ip route 0.0.0.0 0.0.0.0 s0/0/1**

R1(config)# **ip route 0.0.0.0 0.0.0.0 10.1.1.2**