Cisco IOS Commands:

1. When you start the console, will see the prompt of the User EXEC mode (Router>). To see which commands are available in this mode, type **"?"**:

   Router1> ?

2. To view and change system parameters of a Cisco router, you must enter the privileged EXEC mode, by typing:

   Router1> enable
   Router1#

3. To modify system wide configuration parameters, you must enter the global configuration mode. This mode is entered by typing:

   Router1# configure terminal
   Router1(config)#

4. To make changes to a network interface, enter the interface configuration mode, with the command:

   Router1(config)# interface FastEthernet0/0
   Router1(config-if)#

   The name of the interface is provided as an argument. Here, the network interface that is configured is FastEthernet0/0.

5. To return from the interface configuration to the global configuration mode, or from the global configuration mode to the privileged EXEC mode, use the **"exit"** command:

   Router1(config-if)# exit
   Router1(config)# exit
   Router1#

   Or, to directly return to the privileged EXEC mode from any configuration mode, use the **"end"** command:

   Router1(config-if)# end
   Router1#

6. To return from the privileged EXEC mode to the user EXEC mode, type:

   Router1# disable
   Router1>

7. To terminate the console session from the user EXEC mode, type:

   Router1> logout
   Router1 con0 is now available
   Press RETURN to get started.

Or type "logout" or "exit" from the privileged EXEC mode:

Router1# exit
Router1 con0 is now available
Press RETURN to get started.

IOS MODE: PREVILEGED EXEC

show ip route

Displays the contents of the routing table

clear ip route *

Deletes all routing table entries

show ip cache

Displays the routing cache

IOS MODE: GLOBAL CONFIGURATION

ip route-cache

Enables route caching. By default, route caching is enabled on a router.

no ip route-cache

Disables route caching

ip route destination mask gw_address

Adds a static routing table entry to destination with net mask mask. The argument gw_address is the IP address of the next-hop router.

ip route destination mask Iface

Adds a static routing table entry to destination with net mask mask. Here, the next-hop information is the name of a network interface (e.g. FastEthernet0/0)

no ip route destination mask gw_address

no ip route destination mask Iface

Deletes the route table entry with destination, mask, and gw_address or Iface from the routing table.

Configuring an IP address:

```
Router1> enable
Router1# configure terminal
Router1(config)# no ip routing
Router1(config)# ip routing
Router1(config)# interface FastEthernet0/0
Router1(config-if)# ip address xxxxxxxx netmask
Router1(config-if)# no shutdown
Router1(config-if)# end
```

<u>Adding a route</u>:

Router1 (config)# ip route *host or net address netmask gwaddress*

NOTE:
To clear the ARP cache on the routers you need to do the following:

Router1(config)# no ip routing
Router1(config)# ip routing

Check the arp cache and you will find it empty.