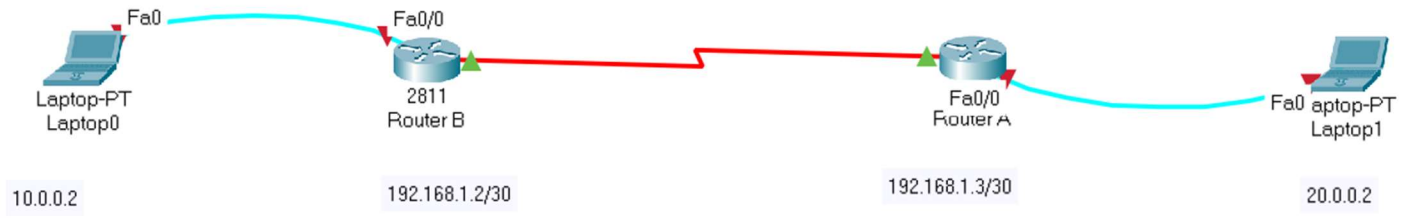
Ex.No:15	COMMUNICATION USING HDLC
Date:	

AIM:

To configure PPP using routers in Cisco Packet Tracer.

PROCEDURE:

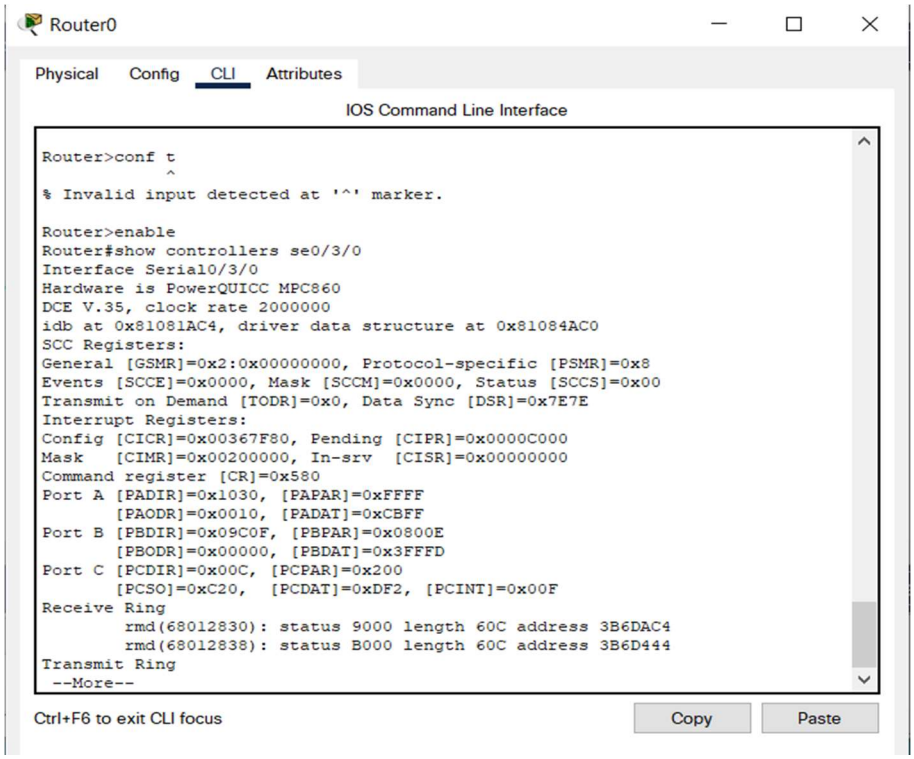
1 . Connect the devices as shown in the below figure.

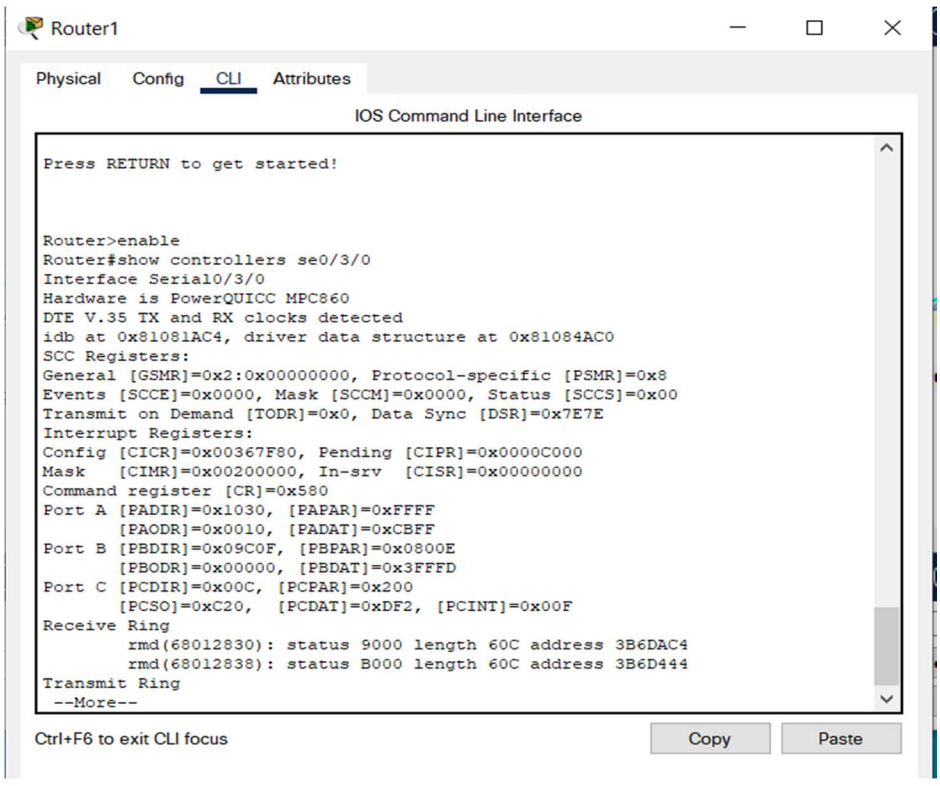


2 . Initial IP configuration.

Device / Interface	IP Address	Connected with
PC0 / Fa0	10.0.0.2 /8	Router0 / Fa0/0
PC1 / Fa0	20.0.0.2 /8	Router1 / Fa0/0
Router0 / Se0/3/0	192.168.1.2 /30	Router1 / Se0/3/0
Router1 / Se0/3/0	192.168.1.3 /30	Router0 / Se0/3/0

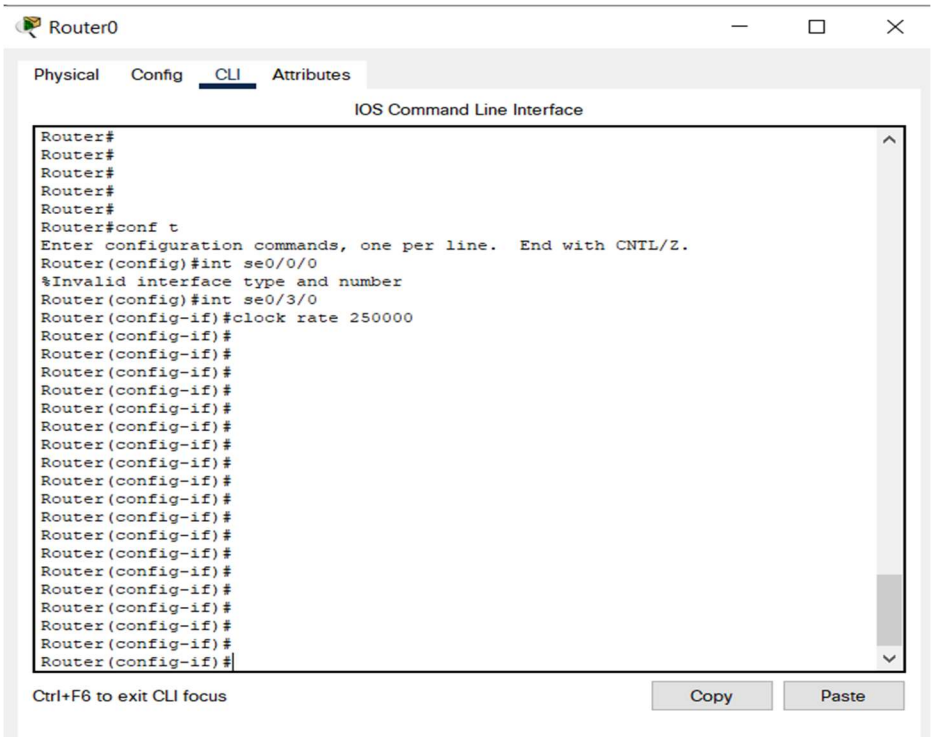
3 . Use the connected laptops to find the DCE and DTE routers


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Router>conf t
^
% Invalid input detected at '^' marker.
Router>enable
Router#show controllers se0/3/0
Interface Serial0/3/0
Hardware is PowerQUICC MPC860
DCE V.35, clock rate 2000000
idb at 0x81081AC4, driver data structure at 0x81084AC0
SCC Registers:
General [GSMR]=0x2:0x00000000, Protocol-specific [PSMR]=0x8
Events [SCCE]=0x0000, Mask [SCCM]=0x0000, Status [SCCS]=0x00
Transmit on Demand [TODR]=0x0, Data Sync [DSR]=0x7E7E
Interrupt Registers:
Config [CICR]=0x00367F80, Pending [CIPR]=0x0000C000
Mask [CIMR]=0x00200000, In-srv [CISR]=0x00000000
Command register [CR]=0x580
Port A [PADIR]=0x1030, [PAPAR]=0xFFFF
[PAODR]=0x0010, [PADAT]=0xCBFF
Port B [PBDIR]=0x09C0F, [PBPAR]=0x0800E
[PBODR]=0x00000, [PBDAT]=0x3FFFD
Port C [PCDIR]=0x00C, [PCPAR]=0x200
[PCSO]=0xC20, [PCDAT]=0xDF2, [PCINT]=0x00F
Receive Ring
rmd(68012830): status 9000 length 60C address 3B6DAC4
rmd(68012838): status B000 length 60C address 3B6D444
Transmit Ring
--More--
Ctrl+F6 to exit CLI focus
Copy
Paste

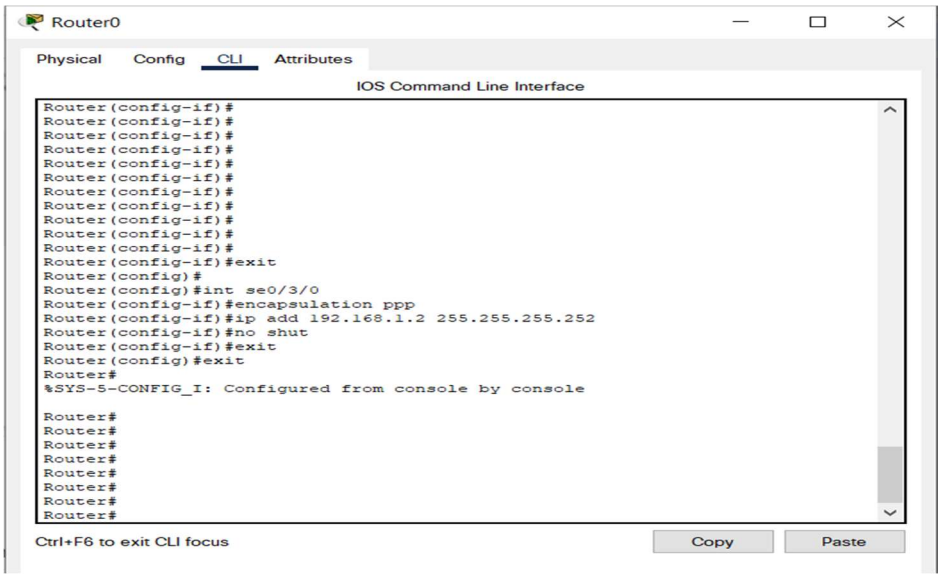

Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
Press RETURN to get started!
Router>enable
Router#show controllers se0/3/0
Interface Serial0/3/0
Hardware is PowerQUICC MPC860
DTE V.35 TX and RX clocks detected
idb at 0x81081AC4, driver data structure at 0x81084AC0
SCC Registers:
General [GSMR]=0x2:0x00000000, Protocol-specific [PSMR]=0x8
Events [SCCE]=0x0000, Mask [SCCM]=0x0000, Status [SCCS]=0x00
Transmit on Demand [TODR]=0x0, Data Sync [DSR]=0x7E7E
Interrupt Registers:
Config [CICR]=0x00367F80, Pending [CIPR]=0x0000C000
Mask [CIMR]=0x00200000, In-srv [CISR]=0x00000000
Command register [CR]=0x580
Port A [PADIR]=0x1030, [PAPAR]=0xFFFF
[PAODR]=0x0010, [PADAT]=0xCBFF
Port B [PBDIR]=0x09C0F, [PBPAR]=0x0800E
[PBODR]=0x00000, [PBDAT]=0x3FFFD
Port C [PCDIR]=0x00C, [PCPAR]=0x200
[PCSO]=0xC20, [PCDAT]=0xDF2, [PCINT]=0x00F
Receive Ring
rmd(68012830): status 9000 length 60C address 3B6DAC4
rmd(68012838): status B000 length 60C address 3B6D444
Transmit Ring
--More--
Ctrl+F6 to exit CLI focus
Copy
Paste

4. Configure the routers with the following parameters

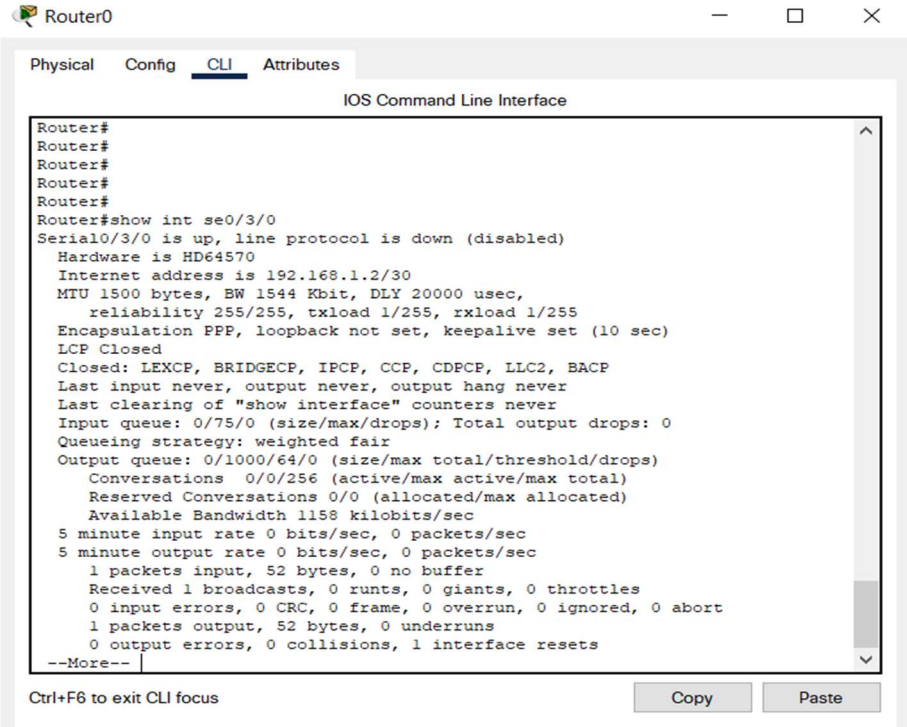
Router0 being the DCE, clock rate has to be configured on Router0 serial 0/3/0 interface.



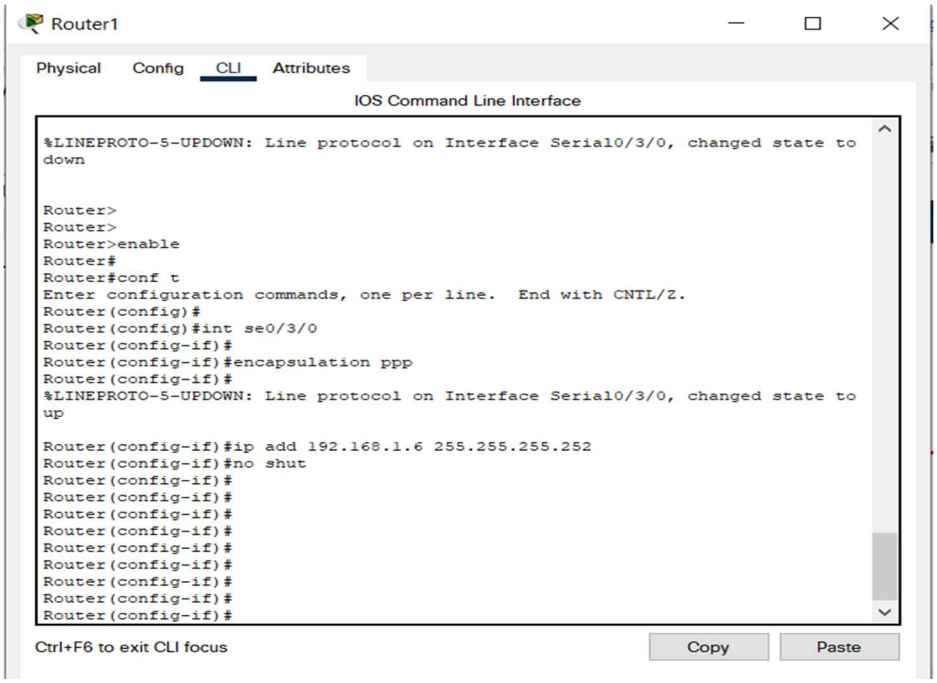
5. Then, configure PPP encapsulation and IP address on Router0 serial 0/3/0 interface. The **encapsulation ppp** configures PPP protocol on the serial interface. Router0 being the DCE side of the serial link, the 192.168.1.3 /30 IP address is configured on Router0 serial 0/3/0 interface. Don't forget to enable the interface with a no shutdown command.



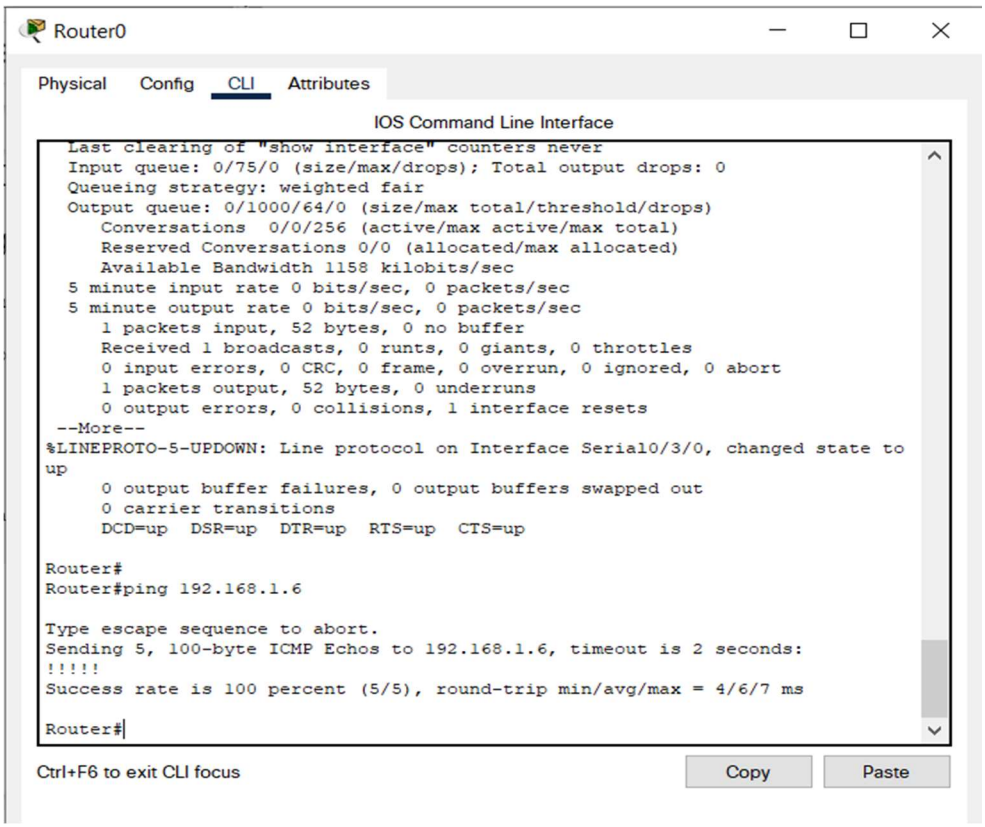
6. The show interfaces serial 0/3/0 confirms that PPP encapsulation is enabled on the interface : Encapsulation PPP, loopback not set, keepalive set (10 sec)



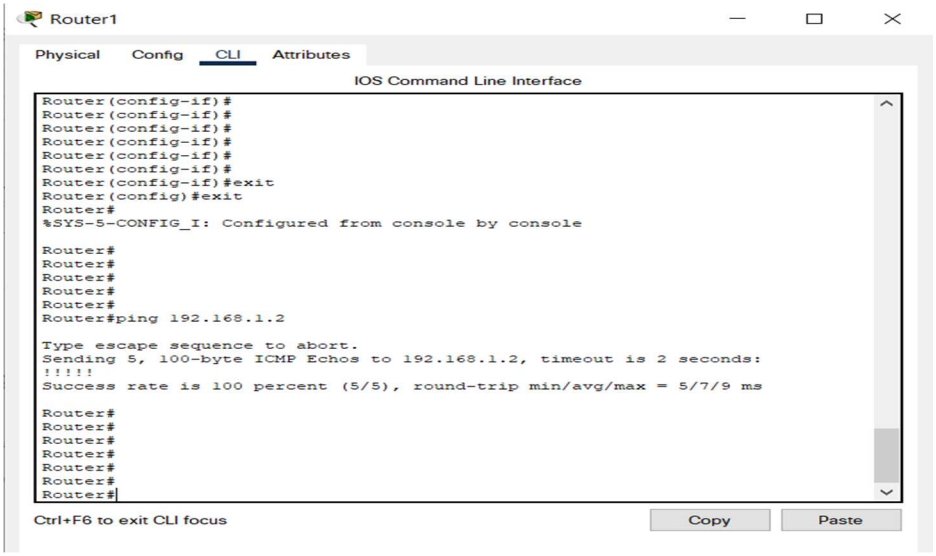
7. Finally, configure PPP encapsulation and IP address on Router1 serial 0/3/0 interface. The link comes up as both routers are correctly configured.



8. NOW CHECK THE CONNECTION BY PINGING EACH OTHER.First we go to Router0 and ping with Router1:



Now we go to Router1 and test the network by pinging the Router0 interface.



RESULT:

Hence successfully, configured PPP using routers in Cisco Packet Tracer.