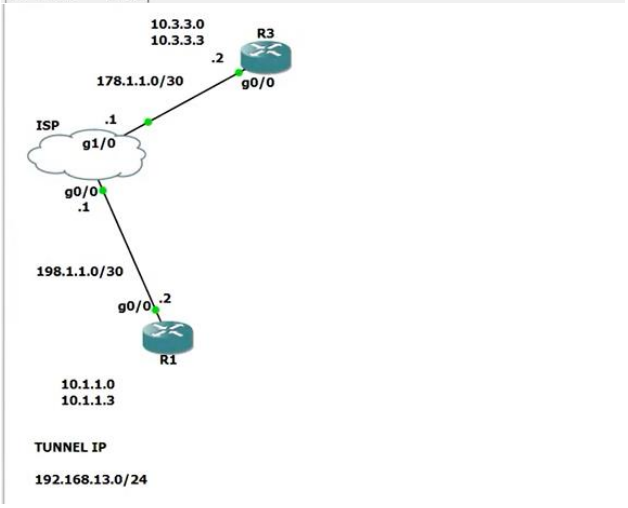
Advance Class-4

VPN basic

```
SECURE VPN :  SITE-TO-SITE VPN  ---> IPsec

              REMOTE ACCESS VPN ---> SSL


TRUSTED VPN:  BGP   MPLS   VLAN

PPTP:   L2TP: IPsec --> UNICAST

GRE : IPsec ---> MULTICAST

IPsec:  AH  ESP

SSL:

ESP:

DES: 56 BIT  3DES:168 BIT    AES : 128 192 256

# MD5   SHA
```



#ISP

```
ISP#
ISP#CONFIG T
Enter configuration commands, one per line.  End with CNTL/Z.
ISP(config)#int gig0/0
ISP(config-if)#ip add 198.1.1.1 255.255.255.252
ISP(config-if)#no shut
ISP(config-if)#int gig1/0
ISP(config-if)#
*Sep 20 21:24:09.239: %LINK-3-UPDOWN: Interface GigabitEthernet0/0, changed state to up
*Sep 20 21:24:10.239: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, chang
ed state to up
ISP(config-if)#ip add 178.1.1.1 255.255.255.252
ISP(config-if)#no shut
ISP(config-if)#^Z
```

#R1

```
R1(config-if)#ip add 10.1.1.0 255.255.255.255
R1(config-if)#int loop 1
R1(config-if)#ip add 10.1.1.0 255.255.255.255
*Sep 20 21:25:28.955: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed state
 to up
R1(config-if)#ip add 10.1.1.1 255.255.255.255
R1(config-if)#int loop 2
R1(config-if)#ip add 10.1.1.1 255.255.255.255
*Sep 20 21:25:33.459: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed state
 to up
R1(config-if)#ip add 10.1.1.2 255.255.255.255
R1(config-if)#int loop 3
R1(config-if)#ip add 10.1.1.2 255.255.255.255
*Sep 20 21:25:37.959: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback3, changed state
 to up
R1(config-if)#ip add 10.1.1.3 255.255.255.255
```

****config Ip address and loopback**

**** same on the router 3 [#R3]**

#R3

```
R3(config)#
R3(config)#
R3(config)#ip route 0.0.0.0 0.0.0.0 178.1.1.1
R3(config)#
R3(config)#
```

****config the default route to the Gateway**

**** config same on the #R1**

##config the tunnel

#R1

```
R1(config)#int tunnel 1
R1(config-if)#
*Sep 20 21:29:53.887: %LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state t
o down
R1(config-if)#ip add 192.168.13.1 255.255.255.0
R1(config-if)#tunnel source gig0/0
R1(config-if)#tunnel destination 178.1.1.2
R1(config-if)#exit
R1(config)#
*Sep 20 21:30:54.835: %LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state t
```

#R3

```
R3(config)#int tunnel 3
R3(config-if)#
*Sep 20 21:31:13.647: %LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel3, changed state to
down
R3(config-if)#ip add 192.168.13.3 255.255.255.0
R3(config-if)#tunnel source gig0/0
R3(config-if)#tunnel destination 198.1.1.2
R3(config-if)#e
*Sep 20 21:31:38.911: %LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel3, changed state to
up
R3(config-if)#exit
R3(config)#
R3(config)#do sh run int
```

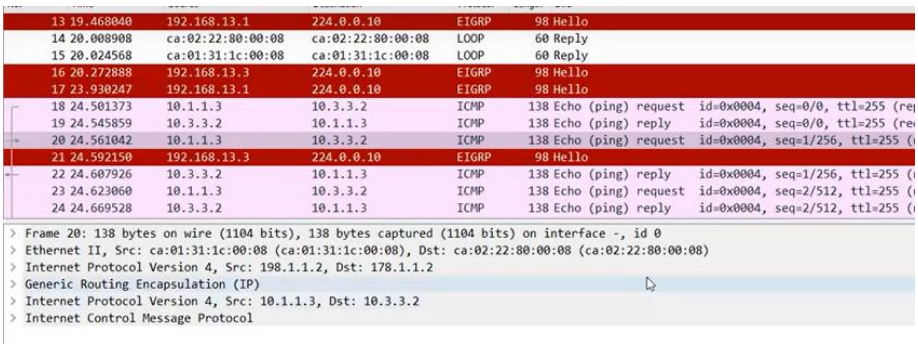
**** sh run int tunnel <num>**

#R1

```
R1(config)#
R1(config)#router eigrp 50
R1(config-router)#no au
R1(config-router)#net 192.168.13.0
R1(config-router)#net 10.1.1.0 0.0.0.3
R1(config-router)#
```

#R3

****config same on the R3**



**** GRE header.**