Question 1

Based on the information shown in the exhibit, how many EPS bearers has the PGW created in total for all UEs?

```
A:PGW# show mobile-gateway pdn bearer-context

===========================================================================
Bearer context
===========================================================================
IMSI              APN            Bearer  Type  QCI/ARP  MBR/GBR       SDFs
---------------------------------------------------------------------------
302720123456791   ipd.alcatel    5       Def   9/12     -             0
302720123456791   ipd.alcatel    6       Ded   2/2      30000/20000   1
302720123456790   ipd.alcatel    5       Def   9/12     -             0
302720123456790   ipd.alcatel    6       Ded   2/2      30000/20000   1
302720123456789   ipd.alcatel    5       Def   9/12     -             0
302720123456789   ipd.alcatel    6       Ded   2/2      30000/20000   1
---------------------------------------------------------------------------
```

Options:
A- 6

B- 5

C- 4

D- 3

E- 2

F- 1

Answer:

A

Question 2

Question Type: MultipleChoice

A UE needs to get an IP address before it can communicate to any PDN over the LTE network. Which of the following statements most accurately describes the process of the IP address allocation?

Options:

A- A UE may obtain an IP address during the PDN connection setup.

B- A PGW may assign the IP address from its local address pools.

C- A PGW may obtain an IP address from a RADIUS server and assign it to the UE.

D- A PGW may obtain an IP address from a DHCP server and assign it to the UE.

E- All of the above answers are correct.

Answer:

E

Question 3

Question Type: MultipleChoice

Which of the following statements is FALSE regarding the PGW?

Options:

A- The PGW terminates the IP sessions from a UE.

B- The PGW enforces PCC rules and QoS policies.

C- The PGW may provide gating control for user traffic.

D- A UE may be served by only one PGW.

E- A UE may receive more than one IP address from the PGW.

Answer:

D

Question 4
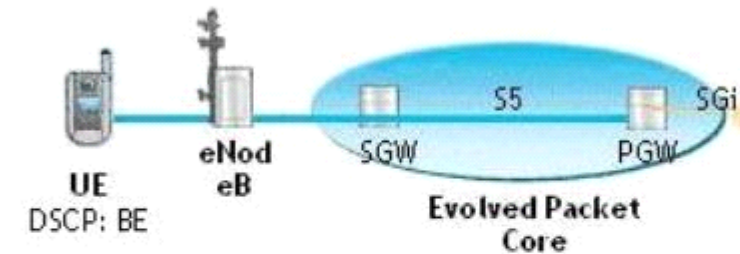
Question Type: MultipleChoice

A UE is exchanging best-effort (BE) IP traffic with a PDN server over an EPS bearer with a QCI/ARP value of 9/12. Based on the information shown in the exhibit, what is the DSCP value of traffic egressing the S5 interface of the PGW to the SGW?

```
*A:PGW>config>mobile# info
----------------------------------------------
    profile
        diameter-peer "diam-peer-1"
            application-type gx
            destination-realm "lucent.com"
            diameter-profile "default"
            interface "int-gx"
            peer 10.10.5.2 port 3868
                no shutdown
            exit
        exit
        policy-options
            qci-policy "dl-qci-pl"
                qci 9 arp 12
                    dscp ef
                    no dscp-preserve
                    fc "ef"
                    profile in
                exit
            exit
            qci-policy "ul-qci-pl"
                qci 9 arp 12
                    dscp af21
                    no dscp-preserve
                    profile out
                exit
            exit
        exit
    exit
    pdn 1
        apn "ipd.alcatel-lucent.com"
            pcrf-selection
                dynamic-pcc
            exit
            ip-alloc-method local-pool
            pdn-type ipv4
            pdn-type ipv6
            pdn-type ipv4v6
            qci-policy uplink "ul-qci-pl" downlink "dl-qci-pl"
            router "Base"
```

```
signaling
        diameter
            origin-host "diam.origRealm.c
            origin-realm "origRealm.com"
            profile "default"
        exit
        interface "system"
    exit
    kpi-kci
    exit
    gx
        pcrf-selection
            primary-diameter-peer "diam-p
        exit
    exit
    s5
        interface
            gtp-c "int-s5"
            gtp-u "int-s5"
        exit
    exit
    no shutdown
exit
system
    group-1 redundancy one-to-one gateway
```

Options:

A- BE

B- EF

C- AF21

D- NC

E- None of the above answers are correct

Answer:

B

Question 5

Question Type: **MultipleChoice**

On Alcatel-Lucent 7750 SGW, which of the following CLI commands is used to obtain the output displayed in the exhibit?

```
==================================================================
Peer address : 10.10.10.5
Router                     : Base
Port                       : 2123        Chassis/Card                : 1/2

Create session requests    : 6           Create session responses    : 6
Delete session requests    : 4           Delete session responses    : 4
Create bearer requests     : 0           Create bearer responses      : 0
Delete bearer requests     : 1           Delete bearer responses      : 1
Update bearer requests     : 0           Update bearer responses      : 0
Modify bearer requests     : 0           Modify bearer responses      : 0
Malformed packets Rx       : 0           Unknown message pkts Rx      : 0
Modify bearer commands     : 0           Modify bearer fail ind       : 0
Delete bearer commands     : 0           Delete bearer fail ind       : 0
Missing mand IE pkts Rx    : 0
Bearer resource commands   : 0           Bearer resource fail ind     : 0
------------------------------------------------------------------
Peer address : 10.10.10.5
Router                     : Base
Port                       : 2123        Chassis/Card                : 1/A

Create session requests    : 0           Create session responses     : 0
Delete session requests    : 0           Delete session responses     : 0
Create bearer requests     : 0           Create bearer responses       : 0
Delete bearer requests     : 0           Delete bearer responses       : 0
Update bearer requests     : 0           Update bearer responses       : 0
Modify bearer requests     : 0           Modify bearer responses       : 0
Malformed packets Rx       : 0           Unknown message pkts Rx       : 0
Modify bearer commands     : 0           Modify bearer fail ind        : 0
Delete bearer commands     : 0           Delete bearer fail ind        : 0
Missing mand IE pkts Rx    : 0
Bearer resource commands   : 0           Bearer resource fail ind      : 0
------------------------------------------------------------------
Number of peer instances : 2
```

A- Show mobile-gateway serving ref-point-stats s11

B- Show mobile-gateway serving ref-point-stats s5

C- Show mobile-gateway serving ref-point-stats s11 instance

D- Show mobile-gateway serving ref-point-stats s5 instance

Answer:

D

Question 6

Question Type: **MultipleChoice**

Which of the following statements is FALSE regarding the EPS bearers?

Options:

A- An EPS bearer is either a GBR bearer or a Non-GBR bearer.

B- An EPS bearer is either a default bearer or a dedicated bearer.

C- A dedicated bearer can be a GBR or a Non-GBR bearer.

D- A default bearer can be a GBR or a Non-GBR bearer.

E- A UE can have multiple GBR or Non-GBR bearers.

Answer:

D

Question 7

Question Type: MultipleChoice

When a UE is roaming, which of the following interfaces is used when the visiting SGW needs to communicate with the UE's home PGW?

Options:

A- TheS1 interface.

B- The S5 interface.

C- The S8 interface.

D- The S10 interface.

E- The SGi interface.

Answer:

C

Question 8

Question Type: **MultipleChoice**

Which of the following interfaces is not using the GTP-U protocol?

Options:

A- The X2 interface

B- The S1-U interface

C- The S4 interface

D- The S5 interface

E- The SGi interface

Answer:

E

Question 9

Question Type: MultipleChoice

When MG-ISM redundancy is used on an Alcatel-Lucent 7750 MG, which of the following statements is FALSE?

Options:

A- An MG-ISM switchover has no impact on connected users.

B- An MG-ISM switchover has no impact on network element peers.

C- EPS bearers are synchronized between the active and standby MG-ISM cards.

D- The redundancy is non-revertive.

E- None of the above statements are false.

Question 10

Question Type: **MultipleChoice**

A HE (HTTP client) is communicating with an HTTP server over The EPC core Based on the information shown in the exhibit, what is the maximum HTTP traffic rate that the UE may have in the DL direction?

```
A:PGW# show mobile-gateway pdn bearer-context imsi 302720123456789 detail
Bearer context detail
===================================================================
IMSI          : 302720123456789
APN           : ipd.alcatel-lucent.com
Bearer Id     : 5                 Bearer type    : Default
QCI/ARP       : 9/12              SDFs           : 0
Up Time       : 0d 00:01:42

S5 PGW Data TEID : 0xd04925        S5 SGW Data TEID : 0x4b00705
S5 PGW Data addr : 10.10.7.2
S5 SGW Data addr : 10.10.7.1

S5 DL packets    : 235681          S5 DL bytes      : 337942413
SGI UL packets   : 235585          SGI UL bytes     : 12756220
-------------------------------------------------------------------
IMSI          : 302720123456789
APN           : ipd.alcatel-lucent.com
Bearer Id     : 6                 Bearer type    : Dedicated
QCI/ARP       : 2/12              SDFs           : 2
Up Time       : 0d 00:01:29
...
S5 DL packets    : 0               S5 DL bytes      : 0
SGI UL packets   : 0               SGI UL bytes     : 0

SDF rule name    : rule-1
SDF precedence   : 2               SDF pkt filters  : 2
SDF QoS UL MBR   : 15000 Kbps      SDF QoS DL MBR   : 15000 Kbps
SDF QoS UL GBR   : 10000 Kbps      SDF QoS DL GBR   : 10000 Kbps
Filter id        : 2               Filter direction : DL
Filter protocol  : udp
Source address   : 10.10.6.2/32
Source ports     : 120 - 121
Destination addr : 5.5.12.74/32
Filter id        : 3               Filter direction : UL
Filter protocol  : udp
Source address   : 5.5.12.74/32
Destination addr : 10.10.6.2/32
Destnation ports : 120 - 121

SDF rule name    : rule-2
SDF precedence   : 20              SDF pkt filters  : 2
SDF QoS UL MBR   : 15000 Kbps      SDF QoS DL MBR   : 15000 Kbps
SDF QoS UL GBR   : 10000 Kbps      SDF QoS DL GBR   : 10000 Kbps
Filter id        : 0               Filter direction : DL
Filter protocol  : udp
Source address   : 10.10.6.2/32
Source ports     : 20 - 21
Destination addr : 5.5.12.74/32
Filter id        : 1               Filter direction : UL
Filter protocol  : udp
Source address   : 5.5.12.74/32
Destination addr : 10.10.6.2/32
Destnation ports : 20 - 21
```


UE 5.5.12.74 — eNod eB — SGW — PGW — Evolved Packet Core — HTTP Server 10.10.6.2, TCP port 80

```
*A:PGW# show mobile-gateway pdn bearer-context
===================================================================
Bearer context
===================================================================
IMSI            APN            Bearer Type  QCI/ARP  MBR/GBR     SDFs
-------------------------------------------------------------------
302720123456789 ipd.alcatel-luce* 5    Def  9/12    -            0
302720123456789 ipd.alcatel-luce* 6    Ded  2/12    30000/20000  2
-------------------------------------------------------------------
```

```
*A:PGW# show mobile-gateway pdn pdn-context imsi 302720123456789 detail
===================================================================
PDN context detail
===================================================================
IMSI            : 302720123456789
APN             : ipd.alcatel-lucent.com
PDN type        : IPv4                 LBI              : 5
S5 sig protocol : GTP                  APN restriction  : 0
UL APN AMBR     : 55000 kbps           DL APN AMBR      : 55000 kbps
Bearer contexts : 2                    SDFs             : 2
Piggyback bearers requested           : 0
Piggyback bearers creation successful : 0

Charging bearer *: Visiting

UE IPv4 address : 5.5.12.74

S5 PGW Ctrl Teid : 0xd04900           S5 SGW Ctrl Teid : 0x4b00700
S5 PGW V4 Ctl Adr: 10.10.7.2          S5 SGW V4 Ctl Adr: 10.10.7.1
Gx PCRF addr     : 10.10.5.2
Gx PGW addr      : 10.10.5.1
PCRF triggers    : N/A
-------------------------------------------------------------------
----
```

Options:

A- 10000 kbps

B- 15000 kbps

C- 20000 kbps

D- 30000 kbps

E- 55000 kbps

F- None of the above answers are correct.

Answer:

E