

**1. Modify the following texts so that the statements are true:**

The (packet/circuit) switched services provide (data message fragmentation/dedicated path reservation) for (audio/VoIP) calls.

The (packet/circuit) switched services provide (data message fragmentation/dedicated path reservation) for (audio/VoIP) calls.

The (packet/circuit) switched services interwork with (Internet/PSTN).

The (packet/circuit) switched services interwork with (Internet/PSTN).

The UTRAN network topology follows the (star/mash) model whereas evolved UTRAN points to (star/mash) topology.

User identification and addressing based on (IP address/IMSI and MSISDN) is processed in (HSS/HLR).

In LTE, (IP packets/VoIP calls) are forwarded through the (IMS service/GTP tunnel).

In LTE, (IP packets/VoIP calls) are forwarded through the (IMS service/GTP tunnel).

Each application running in UE has (same/different) QoS requirements.

**2. Assign the individual technologies to the corresponding generations of mobile systems:**

eNodeB, GGSN, HSS, I-CSCF, MME, MSC, NodeB, P-CSCF, S-CSCF, SGSN, S-GW

IMS	
3G core	
UTRAN	
EPC	
E-UTRAN	



**3. Assign the terms from the left column to the corresponding properties on the right.**

Proxy-CSCF	forwarding an initial SIP request to the main control
Interrogating-CSCF	central node of the signalling plane
Serving-CSCF	specific IP applications
Application Server	the first point of contact for the terminal

**4. Mark the true statements.**

- ☐ In 2G GSM no packet transport was possible.
- ☐ The circuit switching domain is composed of the MSC/VLR and Gateway MSC.
- ☐ LTE is based only on CS services so voice communication is natively supported.
- ☐ Evolved NodeB are part of Evolved UTRAN and can be interconnected via X2 interface.
- ☐ Evolved NodeB includes database of users profiles.
- ☐ Serving Gateway is the concatenation of the HLR and the AuC.
- ☐ LTE Advanced adds carrier aggregation and relaying to the LTE.

