

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

LTE stands for $\begin{pmatrix} \text{Light Terminal Emulation} \\ \text{Long Term Evolution} \end{pmatrix}$ and is a registered trademark owned by $\begin{pmatrix} \text{ETSI} \\ \text{IETF} \end{pmatrix}$.

The LTE $\begin{pmatrix} \text{wired} \\ \text{wireless} \end{pmatrix}$ interface is $\begin{pmatrix} \text{compatible} \\ \text{incompatible} \end{pmatrix}$ with older 2G and 3G networks.

The goal of LTE was to $\begin{pmatrix} \text{decrease} \\ \text{increase} \end{pmatrix}$ the capacity and speed of $\begin{pmatrix} \text{wired} \\ \text{wireless} \end{pmatrix}$ data networks.

The LTE network consists of the core network named $\begin{pmatrix} \text{E-UTRAN} \\ \text{EPC} \end{pmatrix}$ and the access network known as $\begin{pmatrix} \text{E-UTRAN} \\ \text{EPC} \end{pmatrix}$.

The $\begin{pmatrix} \text{logical} \\ \text{physical} \\ \text{transport} \end{pmatrix}$ channels are the real implementation of the transport channel.

The $\begin{pmatrix} \text{logical} \\ \text{physical} \\ \text{transport} \end{pmatrix}$ channels correspond to data-transfer services.

The $\begin{pmatrix} \text{logical} \\ \text{physical} \\ \text{transport} \end{pmatrix}$ channels describe how and with what characteristics data are transferred.

$\begin{pmatrix} \text{Only one} \\ \text{Multiple} \end{pmatrix}$ application(s) may be running in a UE at the same time.



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

UMTS, LTE, CDMA2000, WiMAX, GPRS, NMT, EDGE, HSPA+, GSM, LTE-A

1 st generation	
2 nd generation	
3 rd generation	
4 th generation	
5 th generation	

3. Assign the terms from the left column to the corresponding properties on the right (one or more).

	User profile storage
HLR	User identification
	Authentication
	Integrity protection
AuC	User addressing
	Service subscription
	Radio path ciphering



4. Mark the true statements.

- ☐ 2G GSM cellular networks were initially designed only for circuit-switched services.
- ☐ The packet switching domain is composed of the MSC/VLR and Gateway MSC.
- ☐ LTE is based on PS services so voice communication is natively supported.
- ☐ Voice communication is in LTE supported only by using IMS services.
- ☐ Voice communication in LTE cannot be possible.
- ☐ LTE is based on CS services so voice communication is natively supported.
- ☐ LTE Advanced adds downlink and uplink multiple antenna transmission to the LTE

