

**Infocom systems – Infokommunikációs rendszerek**  
**List of questions -- Ellenőrző kérdések**  
**2019.**

1. What is the convergence in the field of information and communication technology? What are the consequences
2. Which kind of limits are in the field of electronic communications?
3. What are the main transmission characteristics of twisted pair cables (Attenuation, characteristic impedance, crosstalk...)? What are the main applications of twisted pair cables?
4. What are the main characteristics of coaxial cables? What are the main applications of coaxial cables?
5. What are the main transmission characteristics and propagation modes of fiber cables? What are the main applications of fiber cables?
6. What are the main transmission characteristics of radio connections? What is the fading?
7. Which frequency bands are used in radio communications? What are the main wave propagation modes?
8. What are the Characteristics and main application of terrestrial and space radio communications?
9. Principles of cellular systems
10. Which frequency bands are used in satellite communications? What are the main communications problems in satellite communications?
11. Analogue modulation systems (AM-FM)
12. Digital modulation systems (BPSK., QPSK, QAM)
13. What are the main functions of multiplexing and switching nodes in the networks?
14. What are the main features of circuit switching, packet switching and cell switching?
15. Spread spectrum, FHSS, DSSS
16. What is the network structure of the MATÁV network?
17. What is the network structure of the PANTEL network?
18. What are the main components of a GSM network?
19. What are the operating statuses of a MS?
20. What are the actions of the network during roaming and handover?
21. What are the functions of HLR and VLR in the GSM network?
22. What are the functions of MSC and BSC in the GSM network?
23. What are the steps to call MS?
24. What are the steps call from MS?
25. What is the function of a private network?
26. What are the function and structure of a CATV network?
27. MPEG-2 principles.
28. What is the MPEG stream and transport stream?
29. What is the structure of the HUNGARNET network? Why?
30. Which technologies and structures are applied in the networks of ITK building?
31. Principles of ADSL, Technology of ADSL, features of ADSL, VDSL.
32. What are the main service quality requirements in different services?
33. What are the historical stages of regulation? What is the reason of competition instead of monopoly in electronic communication?
34. What are the main functions of a terminal?

35. Bluetooth, ZigBee
36. WiFi principles, media access control, frequency bands, beam forming
37. 5G systems
38. IPTV
39. <u>Next generation networks</u>