***Sample questions (3d term). Примеры вопросов (зачет, 3ий семестр).***

1. How many generations of computers are there? What is the difference between them? In what way have computers been changing over time?
2. What are the differences between the main types of computers (mainframes, supercomputers, desktop PCs, laptops, and tablets)?
3. What are the similarities between smartphones and tablet PCs?
4. What is the difference between hardware and software?
5. What are the most important hardware components in a computer system? Explain your choice. Talk about the function of each of the component you have named.
6. What types of peripherals do you know? Talk about each of them.
7. What are the three main parts of the CPU? Talk about the functions of each of them.
8. What is the performance of the CPU affected by?
9. What is cache memory? What is its function? What is ‘write-through’ cache and ‘write-back’ cache?
10. What is cache hit/ cache miss?
11. Talk about RAM and ROM. Talk about different types of ROM.
12. What is the difference between primary memory and secondary storage devices? Give examples of primary memory and secondary storage media.
13. Give at least two possible classifications of storage devices.
14. Talk about a hard disk drive. Describe its construction and formatting process.
15. What are the differences between a CD and a DVD in terms of the internal structure?
16. What are the advantages and disadvantages of optical discs over magnetic disks?
17. Compare an HDD and an SSD.
18. What is the difference between system software and application software?
19. What is an operating system? What are the main functions of an operating system?
20. How can operating systems be classified?
21. What is the difference between CLI and GUI?
22. What is an application program? What are the main types of application programs?
23. Talk about the benefits of using open-source software.
24. Talk about the benefits of proprietary software.
25. How can networks be classified? Talk about different types of networks.
26. Talk about different networking hardware and specify their function.
27. Talk about the difference between a hub, a switch, and a router.
28. What types of network topology can you name? Describe each of them.
29. What type of topology is considered the most/ least robust? Why?
30. Talk about the benefits and downsides of wired and wireless networks.
31. Talk about the seven layers of the OSI model. Name them and specify the function of each of them.