1. What is Number System? Explain different types of Number System with examples.
2. Convert the following numbers into their octal equivalents:
3. 11011
4. 1101.0110111
5. Convert the following binary numbers to hexadecimal equivalents
6. 1011101.1011
7. 10110011011
8. Convert the following decimal numbers into their binary and octal equivalents:
9. 64.2
10. 199.3
11. Convert the following binary numbers into their decimal equivalents:
12. 110110.1011
13. 0.1010
14. Convert the following Hex numbers into their Binary and Octal equivalents:
15. A3B.50
16. B2A9
17. What is computer? Explain the basic terminologies of computer. Explain the block diagram of computer.
18. Despite being an IT student of 21st century, why do you think it is a must to have knowledge about the history/generations of computer?
19. Explain the different generations of Computer.
20. How can you say that Data and Information are two different things? Explain along with best possible example.
21. Explain CPU as well as top view of computer with neat diagram.
22. Define the term instruction set architecture in brief and various factors affecting instruction set architecture.
23. Define Computer architecture. Compare and contrast: Computer architecture and Computer organization.
24. Describe Von-Neumann’s architecture in detail along with software and hardware design of instruction architecture.
25. Tabulate the history of microprocessors.
26. What is System Unit? List the different components of System Unit.
27. What is CPU? Explain the different components of CPU with neat diagram.
28. What is Heat Sink? Mention its uses.
29. What is Bus? Explains its types with examples.
30. Explain the terminology of CPU:

* Clock/ Frequency
* system Bus Frequency
* processor frequency
* over clocking
* throttling
* pipeline

1. Explain how CPU works with neat diagram?
2. What is Register? Mention the different general purpose and Special

purpose registers. Mention the uses of registers as well.

1. What is Machine Cycles? Explain its different stages. Also define Instruction cycle.
2. What is Cache memory? Explain the different types of Cache memory.
3. What is the meaning of Core in CPU? Define 4 core, 8 core, 12 core CPU.
4. The processing speed of Harvard architecture is higher than Von Neumann architecture. Explain Why?
5. With reference of bus advancement, differentiate between Harvard and Von Neumann architecture.
6. Define Bus along with its types. Explain the architecture of high speed bus.
7. Define form factor, system unit, memory. Draw the generic structure of I/0 devices.
8. Explain why is the access time of the cache memory lesser than the access time of the main memory?