

# **Assignment 3**

1. Define the term computer architecture?
2. Explain in detail the principle of carry looks ahead adder and design 4-bit CLA adder.
3. What is bus arbitration?
4. Represent the following decimal number in IEEE standard floating-point format in a single & double precision method representation method. (i)  $(1486.125)_{10}$
5. Explain IEEE-754 standard for floating point representation.
6. How does control unit of a computer works?
7. What is Program Counter?
8. Define Addressing Mode?
9. What are the different types of instruction formats?
10. Different between memory stack and register stack?
11. What are Buses?
12. What are the different types of Buses used in computer architecture?
13. Show the multiplication process using Booth's algorithm when the following numbers are multiplied:  $15 * 16$
14. What do you mean by Processor Organization.
15. List the steps involved in an instruction cycle?
16. What is data register?
17. Define bus and memory transfer?
18. Explain functional units of computer system in details?
19. Explain about stack organization used in processors?
20. Define general purpose registers in a processor?
21. Discuss the role of ALU in a processor?
22. What is restoring method in division algorithm.
23. Discuss the different modes of data transfer.
24. Describe in detail the different kinds of addressing modes with an example.
25. Explain Booth algorithm.