DELD Sample Viva Questions

1. What do you mean by Logic Gates?
2. What are the applications of Logic Gates?
3. What is Truth Table?
4. Why we use basic logic gates?
5. Write down the truth table of all logic gates?
6. What do you mean by universal gate?
7. Write truth table for 2 I/P OR, NOR, AND and NAND gate?
8. Implement all logic gate by using universal gate?
9. Why is they called universal Gates?
10. What are the 2 forms of Boolean expression?
11. What is meant by karnaugh map or K-Map method?
12. Difference between Combinational & Sequential Circuits
13. Find the value of X = A B C (A+D) if A=0; B=1; C=1 and D=1

14. Draw circuit diagram of half adder circuit?
15. Draw circuit diagram of full adder circuit?
16. Draw full adder circuit by using half adder circuit and minimum no. of logic gate?
17. Write boolean function for half adder?
18. Write boolean function for fulladder?
19. Design the half adder & full adder using NAND-NAND Logic?
20. Draw circuit diagram of half subtractor circuit?
21. Draw circuit diagram of full subtractor circuit?
22. Draw full subtractor circuit by using half subtractor circuit and minimum no. of logic gate?
23. Write boolean function for half subtractor?
24. Write boolean function for full subtractor?

25. What is code converter?

26. What is Exess - 3 code? Why it is called Excess - 3 code?

27. Show that the Excess – 3 code is self –complementing

28. What is the application of Excess-3 Code?

29. Excess-3 code is Weighted or Unweighted?

30. Out of the possible 16 code combination, how many numbers used in Excess-3 code?

31. What is Demorgan's Law?

32. Show the truth table for Demorgan's Theorem?

33. Solve following example by using D'morgans theorem. A3: - (ABC)'=A'+B'+C'

34. What is Minterm & Maxterm?

35. How Minterm can be converted in Max term?

36. Explain the principle of Multiplexer?

37. Draw a circuit diagram of 4: 1 Multiplexer?

38. What are the advantages of Multiplexer?

39. What are the disadvantages of Multiplexer?

40. Make the Truth-table of Multiplexer?

41. Explain about Demultiplexer?

42. Draw a circuit diagram of 1: 4 Demultiplexer?

43. Make a logic diagram of 1: 4 Demultiplexer?

44. What is the application of Demultiplexer?

45. What is the difference between Multiplexer and Demultiplexer?

46. What is a prime implicant?

47. What is the difference between Latch and flip flop?

48. What is Flip-Flop?

49. What is Latch circuit?

50. Draw a truth –tables of S-R, J-K, D and T?

51. What is the disadvantages of S-R Flip-Flop?

52. How can you remove the problem of S-R Flip –Flop?

53. Make circuit diagram of S-R, J-K, D and T Flip-Flop?

54. What do you understand by Race Aground condition? How it is over come in J-K Flip Flop?

55. What do you mean by present state?

56. What do you mean by next state?

57. Give the comparison between synchronous & Asynchronous counters?

58. Explain Asynchronous (ripple) counter?

59. What is the ring counter?

60. Explain Johnson counter?

61. Give truth table of two bit counter?

62. Give types of ring counters?

63. What is the use of state diagram?

64. What is state table?

65. What do you mean by up down counter?

66. Design mod x counter (x can be 2, 3, 5 etc.)

67. What is parity generation?
68. What is a sequence generator?

69. What is the use of a sequence generator?

70. What is a sequence Detector?

71. What is the use of a sequence generator?

72. In a sequence detector, if the required bit is at its input while checking the sequence bit by bit, the detector moves to present state / Next state?

73. If a complete sequence is detected, what will be the output of a sequence detector?

74. Which are types of modeling styles?

75. Which style is used for design of Full adder using half adder?

76. Difference between behavioral and data flow modelling?

77. What do you mean by functional and timing simulation?

78. What do you mean by test bench?