

GIIT PROFESSIONAL COLLEGE

(Affiliated to KOLHAN UNIVERSITY, Chaibasa)

Question Bank

Course : BSc. IT – 1st Year

Subject Code : IT01A GROUP A

Subject : COMPUTER ORGANISATION ARCHITECTURE

All questions carry equal marks.

1. a) What is multiplexer? Explain its function.
b) What is Encoder? Explain its function.
2. Draw the diagram of S- R flip-flop. Discuss its working principle.
3. Draw J-K flip- flop with working principle and diagram.
4. Difference between full adder and half adder.
5. Write the difference between Active high S-R flip-flop and active low S-R flip-flop
6. Write short notes on
7. a) Master slave flip-flop
b) D-MUX
8. Why multiplexer is called data selector?
9. Primary memory is called volatile memory why?
10. Write the advantages of Master slave flip flop
11. What do you mean by 3 to 8 line decoder?
12. What do you mean by counter explain decade counter
13. What is the Register explain shift Register.
14. What is data selector explain in details.
15. What is ALU? Explain its functions.
16. What is BCD adder? Explain with process.
17. What is parallel in serial out process explain.
18. Write the Postulates of Boolean algebra.
19. Explain NAND gate realizing AND gate.
20. Explain X-NOR gate using NOR gate.
21. Explain X-NOR gate with diagram and truth table.
22. Explain X-OR gate with diagram and truth table.
23. Write the process of K-map.
24. Simplify the following Boolean expression.
 $abc' + ab'c + a'bc$
 $(a+b+c)(a+b+c)' (a+b'+c)$
25. Simplify the Boolean expression by using K-Map.
 $\Sigma (2, 5, 7, 9, 14)$
26. convert the following binary number into gray code
11011, 10101
27. Explain 8086 microprocessor.
28. What are the advantages of T flip flop describe it with suitable diagram.
29. Simplify the Boolean expression by using K-map $\pi (5, 7, 9, 15)$
30. What do you mean by odd priority in error detection?