

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

**THIRD SEMESTER INTEGRATED M.C.A DEGREE EXAMINATION (R), DECEMBER 2022
(2020 SCHEME)****Course Code: 20IMCAT201****Course Name: Computer Organization****Max. Marks: 60****Duration: 3 Hours****PART A*****(Answer all questions. Each question carries 3 marks)***

1. Explain the functional units of a computer.
2. List and explain the types of bus structures.
3. Write the use of hardwired control.
4. What is meant by micro programmed control?
5. How do you perform addition of two positive numbers?
6. Write short note on number representation.
7. How interrupts are enabled and disabled? Explain.
8. Differentiate parallel port and serial port.
9. What is a static memory?
10. Differentiate asynchronous and synchronous DRAMs.

PART B***(Answer one full question from each module, each question carries 6 marks)*****MODULE I**

11. Describe any three addressing modes with example. (6)

OR

12. Explain the execution of an instruction with an example. (6)

MODULE II

13. Explain the execution of an instruction in single bus organization with a diagram. (6)

OR

14. Describe multiple bus organization with the help of a diagram. (6)

MODULE III

15. Explain the design of fast adders. (6)

OR

16. Elaborate on Booth's algorithm. (6)

MODULE IV

17. Explain direct memory access in detail. (6)

OR

18. Describe on pipelining concepts. (6)

MODULE V

19. Explain internal organization of memory chips. (6)

OR

20. Discuss the mapping functions in cache memory. (6)
