

End Term Examination (December 2018)

School: School of Engineering

Program: B.Tech (Mechatronics and
Biomedical Engineering)

Course: Microprocessor and Microcontroller

Course code: MTE301

Semester: V

Max Marks: 40

Duration (mins) : 120

PART-A

(Write Very Short / One Line Answer)

Note: Answer all questions. Each question carries 1 mark.

[10]

1. Draw the block diagram of microprocessor.
2. What is address bus?
3. Define ALE.
4. Draw the block diagram of microcontroller.
5. Define data bus.
6. Define INTR.
7. What is RS232 interface?
8. State the function of interfacing unit.
9. State the function of accumulator.
10. Define the addressing mode.

PART-B

(Short Answer Questions – Not More Than 150 Words)

Note: Answer any four questions. Each question carries 5 marks.

[20]

11. (a) A processor has 23 address lines. Find the maximum memory that can be connected.
(b) A maximum memory of 256 TB can be connected to a processor. Find the address line.
(c) A processor has to be connected with a memory of 120 GB. Find minimum address lines required.
12. Write the short notes on the following.
(a) Program counter (b) stack pointer (c) buses (d) general purpose register
13. Explain the function and operating modes of timer in 8051
14. Explain the serial communication in details.
15. What is addressing mode, explain in details
16. Explain the interfacing of ADC to 8051 microcontroller.

PART-C

(Long/Case Study/Essay Type Answer Questions)

Note: Answer any one question. Each question carries 10 marks.

[10]

17. Draw and explain the architecture & block diagram of 8051 microprocessor.
18. Draw and explain the pin diagram of 8051 microcontroller