

NOVEMBER/DECEMBER 2018

**MPH33 — MICROPROCESSOR AND
MICROCONTROLLER**

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.



1. (a) Draw and explain the memory read cycle.

Or

- (b) Write a note on hardware interrupts of 8085 microprocessor.

2. (a) Differentiate between memory mapped I/O and I/O mapped I/O.

Or

- (b) Discuss the ADC interface to 8085 with a suitable program.

3. (a) Differentiate between 8-bit and 16-bit microcontrollers.

Or

- (b) Write a program to divide two 8-bit numbers using 8051 microcontroller.

4. (a) Discuss the basic of interfacing a DAC into the 8051.

Or

- (b) Explain the interrupts in 8051.

5. (a) Describe the memory organization of PIC 16C6X/7X.

Or

- (b) Write a note on flash program memory.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

All questions carry equal marks.

6. (a) Explain the machine control instructions of 8085 μP . (8)
(b) Write a ALP to find smallest number of an array of numbers. (7)

7. List out the features of PPI- 8251 (USART). Explain their operation modes in detail.

8. Draw the block diagram of architecture of 8051 microcontroller and explain the functional description of each block.

9. Explain the keyboard interfacing with 8051 microcontroller.

10. Draw the block diagram of architecture of PIC16C6X/7X family microcontroller and explain its features.

