MPH33 — MICROPROCESSOR AND MICROCONTROLLER

Time : Three hours　　　　　　　Maximum : 75 marks

SECTION A — (5 × 6 = 30 marks)

Answer ALL questions.

1. (a) List the addressing modes of 8085. Explain each mode with an example.

Or

(b) Discuss the data transfer instructions.

2. (a) What are handshake signals? Explain their functions in data input and data output.

Or

(b) Explain the various operating modes of 8255 PPI.

3. (a) Give an account on registers of 8051 microcontroller.

Or

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

4. (a) Explain the different modes of operation of timers in 8051.

Or

(b) Write a brief note on interrupts and their priorities of 8051.

5. (a) Draw the diagram and explain the asynchronous serial port of embedded microcontroller system.

Or

(b) Explain the salient features of PIC16C6X/7X.

SECTION B — (3 × 15 = 45 marks)

Answer any THREE questions.

6. (a) Explain the various logical and arithmetic instructions available in 8085 μP.

(b) Write an ALP for multiplying two 8-bit numbers, result 16-bit.

7. Describe the architecture and working of 8253 timer interface.

8. Write a program to arrange a set of data in an ascending order using 8051 microcontroller.

9. Discuss any one application of 8051 microcontroller in detail.

10. With the help of a block diagram explain any one industrial control of embedded system.

———