

**People's Education Society's**  
**Dr. Ambedkar College of Commerce & Economics, Wadala, Mumbai - 400 031**  
**F.Y.B.Sc. (IT) Second Semester Examination April 2016**  
**Sub: Microprocessor and Microcontrollers**

**Date: 20/04/2016**

**Marks: 75**

**Time: 2 ½ hrs.**

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**N.B.**

1. Attempt any 2 from Q.1 to Q.6
  2. Attempt any 3 from Q.7
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- Q.1**
- A) Define Tri-State Logic. (05)
  - B) Explain Non-Inverting Buffers. (05)
  - C) Explain priority encoders? (05)
  - D) Write short note on Latch device? (05)
- Q.2**
- A) Draw pin out diagram of 8085 micro processor. (05)
  - B) Explain control and status signal in 8085 (05)
  - C) Explain Interrupt pins of 8085. (05)
  - D) Explain Flag register in 8085. (05)
- Q.3**
- A) Explain Addressing modes of 8085. (05)
  - B) Write an assembly language program in 8085 to Add two numbers stored in location (E000H) and (E001H) and store the result at memory location (E002H) in 8085. (05)
  - C) Write short note on logical instructions in 8085. (05)
  - D) Write an assembly language program in 8085 to multiply two numbers. (05)
- Q.4**
- A) Write short note on modern computer architecture. (05)
  - B) Explain structure and functions of modern computer systems. (05)
  - C) Write short note on Data Movement and Data processing in modern computer systems. (05)
  - D) Write short note on PCI BUS. (05)
- Q.5**
- A) Draw block diagram of 8051. (05)
  - B) Write short note on SFR in 8051. (05)
  - C) Write short note on PSW. (05)
  - D) Write short note on Port0 and Port1 in 8051. (05)
- Q.6**
- A) Write short note on 8051 instruction. (05)
  - B) Explain addressing mode in 8051. (05)
  - C) Write an ALP to Add numbers stored at RAM locations 61H and 62H. (05)
  - D) Write an ALP to multiply numbers at memory location (2000H) and (2001H) and save result at (2002H). (05)
- Q.7**
- A) Write short note on expanding memory size. (05)
  - B) Explain S0, S1, ALE and HOLD and HLDA pin of 8085. (05)
  - C) Explain with example 1 bytes and 2 bytes of instructions in 8085. (05)
  - D) Write Short noted on RAID level 1 and RAID level 2? (05)
  - E) Write short note on Interrupts in 8051. (05)
  - F) Explain Register Bank selection in 8051 with PSW. (05)

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