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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ECE)/(ETE) (2011 Onwards)
B.Tech.(Automation & Robotics) (2011 & Onwards)
B.Tech.(Electronics Engg.) (2012 Onwards)
(Sem.-5)

MICROPROCESSORS & MICROCONTROLLERS

Subject Code : BTEC-504

M.Code : 70480

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly :

- (a) What is the function of RST and ALE signals?
- (b) What do you understand by Embedded Systems?
- (c) Enlist some salient features of 8085.
- (d) List the different flags of 8085 microprocessor.
- (e) How many ways an 8051 can be interrupted?
- (f) Discuss the difference between ADD and ADDC instruction.
- (g) If the frequency of the crystal connected to 8085 is 6MHz, calculate the time to fetch and execute NOP instruction.
- (h) What is the significance of SWAP instruction?
- (i) What is the use of SMOD bit in 8051?
- (j) What is the use of DPTR?

SECTION-B

2. Differentiate between memory mapped I/O and peripheral mapped I/O in case of 8085 microprocessor.
3. Draw and explain the timing diagram of memory read cycle.
4. A switch is connected to pin P1.0 and LED to pin P2.7. Write a program to get the status of the switch and send it to the LED. At the same time, generate a waveform of 100 microsecond at pin p3.2.
5. Write a program to generate a square wave of 2 KHz frequency at pin 2.3 of 8051 microcontroller.
6. Discuss the various registers of 8051 microcontroller.

SECTION-C

7. What is the function of SBUF register? Discuss the various steps to transfer data serially.
8. Classify and explain different types of 8085 instructions with examples.
9. Show the connections for Interfacing of DAC with 8051 and write a program to demonstrate its working.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.