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JAYA GROUP OF INSTITUTIONS
4 TH SEMESTER B.E/B.TECH
MODEL EXAM – II

SUB TITLE :MICROPROCESSOR AND MICROCONTROLLER
SUB CODE : EC 6504
DURATION :3 HRS

DATE: 6 .03.2015
BRANCH :CSE|IT
MAX. MARKS: 100 Marks

ANSWER ALL THE QUESTIONS

PART- A (10*2=20)

1. What is the need for interfacing?
2. What do you mean by BSR mode of 8255 PPI?
3. What is handshaking and what are handshaking signals?
4. Define USART. What are the communication ways of USART?
5. What is key debouncing?
6. What is Microcontroller?
7. Differentiate Microprocessor and Microcontroller.
8. State the function of PSW and SBUF in 8051.
9. What are the uses of LCALL and LJUMP instructions in 8051?
10. What is the use of DJNZ and CJNE instruction?

PART- B (5*16=80)

- 11.a. With neat diagram explain the Programmable Peripheral Interface 8255. (16)
(or)
b. How to interface ADC and DAC with microprocessor. Explain. (16)
- 12.a. With necessary diagrams explain the modes of 8253 Timer controller. (16)
(or)
b. Explain the concept behind DMA and also explain the operation of DMA Controller 8257. (16)
- 13.a. With neat diagram explain the operation of Keyboard and Display controller 8279. (16)
(or)
b. Explain the Special Function Registers of 8051 Microcontroller. (16)
- 14.a. i. Explain port0-port3 operation of 8051 microcontroller. (8)
ii. Explain the pin configuration of 8051 microcontroller. (8)
(or)
b.i. With suitable examples explain the addressing mode of 8051. (8)
ii. Write an ALP program in 8051 to add two 8 bit numbers. (8)
- 15.a. With neat diagram explain the architecture of 8051 microcontroller. (16)
(or)
b. Explain the data transfer, Arithmetic and Logical instructions of 8051 microcontroller. (16)