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GIET MAIN CAMPUS AUTONOMOUS GUNUPUR – 765022
B. Tech Degree (BACK PAPER) Examinations, December – 2020
Fifth Semester
**BELPC 5020 / BEEPC 5020 / BELOE 5051 – MICROPROCESSORS AND
MICRONTROLLERS**

(EE, EEE & Mechanical Engineering)

Time: 2 hrs

Maximum: 50 Marks

The figures in the right hand margin indicate marks.

PART – A: (Multiple Choice Questions)**(1 x 10 = 10 Marks)**Q.1. Answer ALL Questions.

[CO#] [PO#]

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|----|--|-----|
| a. | From the following which instruction performs data transfer operation? | CO1 |
| | (i) MOVE (ii) HLT | |
| | (iii) NOP (iv) ADI | |
| b. | Read/Write memory generally is used for | CO1 |
| | (i) Hiding data (ii) Comparing data | |
| | (iii) Delete data (iv) Store data | |
| c. | NMI Stands for, | CO2 |
| | (i) NANO machine (ii) Non-maskable interrupt | |
| | (iii) No more interrupt (iv) None of the above | |
| d. | The disadvantage of machine level programming is, | CO2 |
| | (i) Not possible to correct the errors (ii) Writing program in difficult | |
| | (iii) Debugging is difficult (iv) Results are not accurate | |
| e. | 8086 is a, | CO2 |
| | (i) 8 bit Microprocessor (ii) 16 bit Microprocessor | |
| | (iii) 32 bit Microprocessor (iv) 64 bit Microprocessor | |
| f. | From the following which is the special purpose programmable peripheral devices? | CO3 |
| | (i) 8253 (ii) 8259 | |
| | (iii) 8279 (iv) 8255 | |
| g. | Programmable interrupt controller handles, | CO3 |
| | (i) One interrupt at a time (ii) Won't handle any interrupt | |
| | (iii) More number of interrupts at a time (iv) None of the above | |
| h. | ADC is a, | CO4 |
| | (i) Output device (ii) Input device | |
| | (iii) I/O device (iv) Converter | |
| i. | Total number of ports in 8051 Microcontroller are, | CO4 |
| | (i) 2 ports (ii) 4 ports | |
| | (iii) 6 ports (iv) 8 ports | |
| j. | Pick the correct logical instruction in 8051, | CO4 |
| | (i) AND (ii) OR | |
| | (iii) XOR (iv) All the above | |

PART – B: (Short Answer Questions)

(5 x 2 = 10 Marks)

Q.2. Answer ALL Questions.

- a. What is subroutine?
- c. Give some examples for PUSH instructions
- e. State the two interrupts of 8085 Microprocessor.
- g. Write about the need for having modem control in 8051A architecture.
- j. Define: Unpacked BCD.

PART – C: (Long Answer Questions)

(6 x 5 = 30 Marks)

Answer ANY FIVE Questions.

Marks

- 3. Explain in detail about various addressing modes in 8085 Microprocessor. (6)
- 4. Describe in detail about memory interfacing. (6)
- 5. Discuss in detail about RAM organisation of 8051 Microcontroller. (6)
- 6. Explain in detail about the architecture of 8085 Microprocessor. (6)
- 7. Discuss in detail about the modes of operation of 8255. (6)
- 8. Explain about the programmable communication interface 8251 USART (6)
- 9. Draw the architecture of 8051 Microcontroller and explain about each block in detail. (6)
- 10. Discuss about the various interrupts in 8051 Microcontroller. (6)

End of Paper