

ROLL No:

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Total number of pages:[2]

Total number of questions:06

B.C.A. 4th Sem**Microprocessor and microcontroller**

Subject Code: BSBC402

Paper ID:

Time allowed: 3 Hrs

Max Marks:60

Important Instructions:

- All questions are compulsory
- Assume any missing data
- Additional instructions, if any

PART A (2×10)

All COs

Q. 1. Short-Answer Questions:

- Explain ALE
- Synchronous serial communication vs. Asynchronous serial communication.
- Branching operations
- Internal and external memories.
- Explain Instruction set.
- Explain instruction cycle.
- Explain UART
- What is program counter?
- What is system bus?
- Explain interrupt.

PART B (8×5)

CO1

Q. 2. Explain architecture of 8085 with diagram.

OR

Explain Instruction cycle and timing diagram of memory read/write operations.

CO1

Q. 3. Explain the architecture of 8051 with pin diagram.

OR

Explain the use of DMA controller with diagram.

CO2

Q. 4. Explain the architecture of interrupt controller 8259.

OR

Explain and differentiate between Data movement instruction and Arithmetic instructions.

CO2

CO3

CO3

Q. 5. Explain the architecture of clock generator 8082A.

OR

With help of diagram explain memory organization of microcontroller.

CO4

CO4

Q. 6. What are addressing modes? Why we have number of addressing modes. Explain the difference between immediate, relative and index addressing

CO5

modes.

OR

Write short notes:

CO4

- (a) Explain counters and timers.
- (b) Explain the various modes of DMA.