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Total No. of Pages: 02

Total No. of Questions: 09

B.Tech.(Electronics & Computer Engg, CSE, IT) (Sem.-4th)

MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING

Subject Code: BTCS-404

Paper ID: [A1186]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATE:

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. students have Attempt any **Two** questions.

SECTION-A

(10x2=20)

Q.1. Write Briefly:

- (a) Write advantage of the assembly language in comparison with high level language.
- (b) Describe briefly 8086 family.
- (c) Show the timing diagram for opcode fetch operation.
- (d) Differentiate between high level language and low level language programming.
- (e) Describe briefly the instruction format of 8085.
- (f) List any four unconditional branch instructions.
- (g) Draw the timing diagram of the memory read cycle.
- (h) Define instruction cycle and machine cycle.
- (i) Describe DMA Controller briefly.
- (j) Discuss fetch and execute operation.

SECTION-B

(4x5=20)

- Q.2.** Draw the circuit for interfacing processor memory, and I/O devices through DMA.
- Q.3.** Write an assembly language program for 8- bit multiplication, product being of 16 bits.
- Q.4.** Discuss PSW in detail for 8085 μ P.
- Q.5.** Show and explain the interfacing of seven segment display with microprocessor.

Q.6. Describe the bus architecture of 8085 with the help of a diagram?

SECTION-C

(2x10=20)

Q.7. With a neat diagram, explain how 8251 is interfaced with 8085 and used for serial communication.

Q.8. Describe the following terms:

- (a) 8255 programmable peripheral interfaces
- (b) Pentium processors.

Q.9. (a) Write an assembly language program using 8085 microprocessor instruction set to arrange N numbers in ascending order.

(b) What are single chip micro-computers? Explain with example.

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