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**Total No. of Pages: 02**  
**Total No. of Questions: 09**

**B. Tech. (IT, CSE) (Sem.-4<sup>th</sup>)**  
**MICROPROCESSOR & ASSEMBLY LANGUAGE PROGRAMMING**  
**Subject Code: CS-208**  
**Paper ID: [A0461]**

**Time: 3 Hrs.**

**Max. Marks: 60**

**INSTRUCTIONS TO CANDIDATE:**

- 1. Attempt Q1 of Section A, any four questions from section B, and any two questions from section C.**

**SECTION-A**

**Q.1.** Answer the followings:-

10x2=20

- (a) Why microprocessor based systems are called flexible & dedicated?
- (b) Difference between assembler and compiler.
- (c) Difference between instruction and a microinstruction.
- (d) Role of clock in microprocessor.
- (e) Role of Input/output Processor.
- (f) Features of 68000 microprocessor.
- (g) Uses of microprocessor development system.
- (h) Function of stack.
- (i) Role of hardware interrupts
- (j) Role of software interrupts.

**SECTION-B**

- Q.2.** Discuss the various addressing modes of 8085 along with their applications. (5)
- Q.3.** (a) In what way 8086 is better than 8085? What are its limitations? (5)  
(b) Write what do you know about single chop microcomputer? (5)
- Q.4.** List the various I/O data transfer techniques. Explain DMA based I/O data transfer technique. (5)
- Q.5.** Write an 8085 program is multiply two 8 bit binary members which are stored at 2000 H AND 3000 H respectively. Use multiplication as a subroutine write program. Starting from 5000 H and the multiplication subroutine from 6000h. (5)
- Q.6.** Discuss fetch and Execution cycles of 8085 by considering an instruction. (5)

### **SECTION-C**

- Q.7.** (a) Draw line block diagram of 8085 microprocessor Showing its architecture and explain the role of its important elements. (5)
- (b) Explain the difference between instruction machine & clock cycles. (5)
- Q.8.** Discuss in detail an application of 8085 for controlling traffic lights in a busy crossing. (10)
- Q.9.** Write notes on any two of the followings:- (5x2=10)
- (a) 8251 chip
  - (b) Various flags of 8085
  - (c) 8085 Interrupt System

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