# JAWAHARLAL NEHRU UNIVERSITY

## SCHOOL OF COMPUTER AND SYSTEMS SCIENCES

**Mid-Term Test**

**MCA - II** Semester, (Winter Semester-2019)

**Course Name: Microprocessors** **Maximum Marks: 40**

**Course Code:** CS184 **Total Time: 2** Hour

Q1. Draw the detailed architecture of 8085 microprocessor. Explain the programming model of 8085 microprocessor along with flags. (10)

Q2.What is the difference between instruction cycle, machine cycle and T- states?. Set the mask to enable RST5.5 and RST6.5 without modifying the masks for RST7. What is trap interrupt? (10)

Q3. (a) Write a assembly level program to Multiply by two employing bit rotation technique. The program multiplies a; hex number stored in location 200A with two and store the result in location 200B.

(b) Write a assembly level program which checks the hex number stored in location 2010 for odd or even parity. If the parity is odd, 00 will be stored in location 2011. Otherwise EE is stored in 2011. (10)

Q4. A set of ten BCD numbers is stored in the memory location starting from 2100. Write a program with a subroutine to add these numbers in BCD. If a carry is generated, save it in register B, and adjust for BCD. The Final sum will be less than $9999_{BCD}$. (10)