Test Problems

a. **Description of Instructions**

Q1. If AL = -9 and BL = 47\textsubscript{10} after IDIV BL what are the values of AL and AH.

Q2. IF AX = -200\textsubscript{10} and CX = 670H after IMUL CX what are the values of AX and DX

Q3. Explain AAA, AAD, AAM, AAS instructions with examples.

Q4. Explain DAA, DAS instructions with examples.

Q5. Explain the instructions related to the fixed and variable ports.

Q6. Explain the instructions related to arithmetic and logical shift.

Q7. How REP instruction is used along with string instructions.

Q8. Explain different types of CALL instructions

b. **Assembly directives.**

Q1. What is the length of bytes reserved for the following directive STORE DW 100 DUP (0)

Q2. What is the difference between ENDS and ENDP directives?

Q3. Explain PTR directive

c. **Algorithms with assembly software programs**

Q1. Write an algorithm to convert BCD to Binary numbers. Write 8086 assembly program to convert two digit BCD number to hexadecimal number

Q2. Write an algorithm to convert Binary number to BCD number. Write 8086 assembly program to convert one byte Binary number to BCD.

Q3. Write an algorithm to evaluate a factorial of an integer number N. Write an assembly program using recursive procedure.

Q4. Write an algorithm to find GCD of two numbers. Write an assembly program to find GCD of two words.

Q5. Write an algorithm and assembly program to sort the numbers in an array in descending order using bubble sort method