Question Bank

a. Description of instructions
Q1. On what condition JZ quit become true
Q2. What are the values of RS0 and RS1 of PSW when 19H location is treated as a register?
Q3. Explain JBC bit, exit instruction
Q4. Does DA A instruction converts binary number to BCD number? Explain under what conditions the BCD numbers gets adjusted after BCD addition
Q5. Differentiate between RET and RETI instructions
Q6. What are program branch ranges of SJMP, AJMP and LJMP instructions?

b. Assembly Directives
Q1. List all the header files required to cross compile C program
Q2. Using the directives initialize a Look Up Table

c. Algorithms with 8051 assembly language programs
Q1. Write an 8051 assembly program to check a byte is a palindrome. Palindrome is a byte or a word or words when read left or right it will be the same. Like for e.g. C3H (11000011b) or MALAYALAM.
Q2. Write an 8051 assembly program to produce a software delay of 1 minute.
Q3. Write an 8051 assembly program to multiply two 16 bit numbers, using shift left and add algorithm
Q4. Write an 8051 assembly program to compute the square root of a 16 bit number using shift left and subtract method
Q5. Write an 8051 assembly program to find LCM of two 16 bit numbers.
Q6. Write an 8051 assembly program to search a key in an array of 16 bit numbers using Binary search algorithm