Assignment

II. ADDRESSING MODES and INSTRUCTION SETS

Ques-① Write an examples the different addressing Modes of data available for MSP430?

Ques-② List all the instruction of MSP43-0 on bits in Status register and explain their operation?

Ques-③ Explain how the double operand instruction format bits are divided for generating Machine Codes. Explain each field of the format?

Assignment

I. ARCHITECTURE

Ques-① Draw the functional block diagram of MSP430 microcontroller and explain function of each block.

Ques-② List the registers in the CPU of MSP430 explain their function?

Ques-③ Explain the essential components available in a typical micro-controller

Assignment

III. CLOCK SYSTEM AND TIMES

Ques-① Draw the block diagram of the clock Module of the MSP430 and explain the operation of each block?

Ques-② What is the main purpose of WDT? Explain the lower byte of the WDT Control ~~Register~~ register. WDTCL.

Ques-③ Draw the simplified block diagram of Basic Timer1 and explain its operation. Also explain the basic Timer1 Control register BTCTL.

V. DIGITAL INPUT-OUTPUT

Ques-① Which are the eight register that are associated with the configuration of Port 1 of MSP430? Explain their function briefly.

Ques-② Explain the format of data for asynchronous transmission?

Ques-③ Draw the Serial Peripheral Interface (SPI) b/w a Master and Slave, and explain the working principle?

IV ANALOG INPUT-OUTPUT

Ques-① Draw the Simplified block diagram of 'Comparator A+ and explain the working principle.?

Ques-② Draw the block diagram of a Signal-delta ADC and explain the working principle?

Ques-③ Draw the Simplified block -diagram of ADC10 and explain its operation.