

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI
II SEMESTER 2015-2016
EEE/CS/INSTR F241 MICROPROCESSOR PROGRAMMING AND INTERFACING
TUTORIAL #1 (OPEN BOOK)
19-01-2016

DURATION: 50 MIN

Q1. How do you determine whether if a microprocessor is 8 bits or 16-bits or 32-bits ?

Sol:

Q2. What is the order in which the microprocessors buses (Address, Data and Control) are activated ?

Sol:

Q3. What is the difference between control flags and the status flags ? Discuss each flag and then ask them to solve the next problem:

Sol:

Q4. For the following:

(a) $97 + 48$

(c) $99 - 33$

(d) $33 - 99$

(e) $-29 + -32$

(f) $-41 - 95$

What will be the result and what will be the nature of the result in terms (All operations should be done using sign- magnitude form of representation)

1. is the result zero
2. is there a carry
3. is there an auxiliary carry
4. is the result negative
5. is there an two's complement overflow
6. Is the result even or odd parity

Sol:

Q5. Is there a possibility of two's complement overflow during subtraction?

Sol:

Q6: Explain the difference between CISC and RISC architecture

Sol:

Q7: Using booth algorithm multiply (-3X7)

Sol: