**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Department of Computer Science and Engineering**

**CSE340: Computer Architecture   
Spring 2013**

**Quiz-1**

**Full Marks:15 Time: 20 Mins**

1. Define **ISA** and **ABI.**  **2**
2. **Encode the MIPS instruction sub $16,$17,$18 and sw $16,40($17) also find their type.** **3**

[sub= 000000 100010,sw=011011]

1. Write MIPS instruction for the expression **f=(g+h)-(i+j),**  using minimum number of

Register. **3**

1. What type instruction is **JAL**? How would you represent **JAL 513** in the register? What would be the value in **$ra**/**$31?**   **3**
2. In general you can store **16-bit** constant in a register, but if you would need to store **27- bit** constant, how would you do this? Give an example. **4**