**CSE230 (Sec-1): Quiz#02**

1. Express the following in terms of quantified propositional functions and logical connectives. (At first define the necessary propositional functions) **[09]**

i) A student in your class has a cat, a dog, and a ferret.

ii) Some student in your class has a cat and a ferret, but not a dog.

iii) No student in your class has a cat, a dog, and a ferret.

1. if **3n+7** is even then **n** is odd. Prove by contraposition. **[05]**
2. Prove that, √**5** is an irrational number. **[06]**