# **CSE 230: Discrete Mathematics (Sec-7) Quiz #2 Total Marks: 20 Time: 40 minutes**

|  |  |
| --- | --- |
| **NAME:** | **ID:** |

**Please read the instructions carefully before attempting to answer the questions. No extra sheet(s) will be provided.**

1. Each of the 90 students participated in at least one of the three track events A, B and C. If 20 students participated in A, 40 students participated in B, and 60 students participated in C, and 5 students participated in all three events. **Marks: 05 + 05 = 10**
2. How many students participated in **at least two** events?
3. How many student participated in **exactly two** events?
4. Determine whether the function is either *one-to-one*, *onto* or both. Explain your answer in brief.

**Marks: 05**

1. Prove that if and are even integers, where, and are integers, then is even.

**Marks: 05**