

se two groups form a partition of $G_3^{(1)}$. Test one of these two groups, say $G_4^{(0)}$. As unit number 4 is in $G_4^{(0)}$, it will test positive and hence $G_4^{(1)}$ does not contain any possessed unit.

Finally, form groups $G_5^{(0)}$ with unit {4} (with numbers having (first) five digits 00100) and $G_5^{(1)}$ with unit {20} (with numbers having (first) five digits 10100). Notice that these two groups form a partition of $G_4^{(1)}$. Test one of these two groups, say $G_5^{(0)}$. As unit number 4 is in $G_5^{(0)}$, it will test positive and hence $G_4^{(1)}$ does not contain any possessed unit. So we have identified our single possessed unit 4 from the group $G_1^{(0)}$ using using 4 tests after the first stage.

Similarly, we can identify the single possessed unit from the group $G_1^{(1)}$ in another 4 tests. These 8 tests together with the 2 tests in the first stage constitute a total of $2n = 10$ tests using which we could identify the two possessed units.

S. B. Rao
CR Rao Advanced Institute of Mathematics, Statistics & Computer Science (AIMSCS)
University of Hyderabad Campus
Central University Post office
Hyderabad -500 046, AP, India
Email:siddanib@yahoo.co.in.

Bikas K. Sinha
Retired Professor of Statistics
Indian Statistical Institute
Stat-Math and Applied Statistics Division
Kolkata-700108, India
Email:bikassinha1946@gmail.com.

P. S. S. N. V. P. Rao
Retired Professor of Statistics
Indian Statistical Institute
Applied Statistics Division
Kolkata-700108, India
Email:pssnvprao@gmail.com.