**Pinkish O. Galvez**

**MT 14 – D**

* Problem 1

Annual usage: 8000 boxes of syringe

Cost of ordering: 10,250 per order

Annual holding cost: 1000 pesos per year

Lead time: 5 days

EOQ = $√\frac{2 x (8000 x 10,250) }{1000}$ = **405**

EOP = $\frac{8000 x 5 }{365}$ = **110**

ROT = $\frac{405 x 365 }{8000}$ = **18**

For maximum financial benefit and storage space utilization, order 405 boxes of syringe each time the inventory drops to 110 (about every 18 days)

* Problem 2

Annual usage: 2000 boxes of red top tubes

Cost of ordering: 4350 per order

Annual holding cost: 2000 pesos per year

Lead time: 10 days

EOQ = $√\frac{2 x (2000 x 4350) }{2000}$ = **93**

EOP = $\frac{2000 x 10 }{365}$ = **55**

ROT = $\frac{ 93 x 365 }{2000}$ = **17**

For maximum financial benefit and storage space utilization, order 93 boxes of red top tubes each time the inventory drops to 55 (about every 17 days)

* Problem 3

Annual usage: 12000 boxes of glass slides

Cost of ordering: 9850 per order

Annual holding cost: 6000 pesos per year

Lead time: 15 days

EOQ = $√\frac{2 x (12000 x 9850) }{6000}$ = **198**

EOP = $\frac{12000 x 15 }{365}$ = **493**

ROT = $\frac{ 198 x 365 }{12000}$ = **6**

For maximum financial benefit and storage space utilization, order 198 boxes of glass slide each time the inventory drops to 493 (about every 6 days)