

TXL-784 (Minor 1)

PART B (7.5 marks)

1) Briefly explain the following with respect to market research.

- Disproportionate strata sampling
- Double cluster sampling

(2)

2) The demand data for a product in two markets is given below. The correlation between the demand of markets A and B is almost zero. The company is following continuous review or Q policy. The ordering cost is Rs 20 per order and inventory carrying cost is Rs 0.05 per unit per week. Target service level is 95% ($z = 1.65$), lead time is 1 week.

Market	Average of weekly demand	Standard deviation of weekly demand	Safety stock	Reorder point	EOQ	Avg. inventory
A	50	10				
B	40	8				
Centralized warehouse						

Complete the above table and show the calculation for each item.

(3)