|  |  |  |
| --- | --- | --- |
| STUDENT NAME | STUDENT NUMBER | SECTION |
| RICHARD JOSEPH | 1603037 | MGMT-6081-21S |

A) COST OF LEVEL PRODUCTION

Total demand = 70,000 + 100,000 +50,000 + 150,000 /4

= 370,000/4

=92500

No of units each worker can produce = 92,500/74

1250 units

|  |  |  |  |
| --- | --- | --- | --- |
| **Quarter** | **DEMAND** | **Reg .production** | **Inventory** |
| 1 | 70000 | 92500 | 92500 – 70000 = 22500 |
| 2 | 100000 | 92500 | 22500+92500- 100000=15000 |
| 3 | 50000 | 92500 | 15000 + 92500- 50000 = 57500 |
| 4 | 150000 | 92500 | 57500 + 92500 – 150000 = 0 |

Cost of level production strategy:

Cost = (370,000 \*10) + (95,000 \* 1) + (34 \*500)

**= $3,812,000**

B) THE CHASE DEMAND

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| QUARTER | DEMAND | REGULAR  PRODUCTION | WORKER  NEEDED | WORKERS  HIRED | WORKERS  FIXED |
| 1 | 70000 | 70000 | 70000/1250  =50 | 56-40 |  |
| 2 | 100000 | 100000 | 100000/1250  =80 | 80-50 |  |
| 3 | 10000 | 50000 | 50000/1250  =40 |  | 80-40=40 |
| 4 | 10000 | 150000 | 150000/1250  =120 | 120-40 =80 |  |
| TOTAL | 370,000 | 370000 |  | 120 | 40 |

SO THAT THE TOTAL COST = (370000 \* 10) + (1250\*500) + (40\*500)

**= $3780,000**

C) PRODUCE 70,000 IN PERIOD 1 AND 100,000 IN PERIODS 2,3 AND 4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| QUARTER | DEMAND | REGULAR PRODUCTION | INVENTORY | WORKERS NEEDED | WORKERS HIRED | WORKER FIXED |
| 1 | 70000 | 70000 | 0 | 70000/1250=50 | 56 –40=16 |  |
| 2 | 100000 | 100000 | 0 | 100000/1250=80 | 80-56 =24 |  |
| 3 | 50000 | 10000 | 50000 | 10000/1250=80 |  |  |
| 4 | 150000 | 10000 | O | 10000/1250=80 |  |  |
| TOTAL | 370000 | 370000 | 50000 |  | 40 |  |

SO THAT THE TOTAL COST =(370000\*10)+(120\*500)+(40\*500)

**=$3780000**

4) PRODUCE 90,000IN PERIODS 1, 2, AND 3 THROUGH 100,000 IN PERIOD 4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| QUARTER | DEMAND | REGULAR PRODUCTION | INVENTORY | WORKERS NEEDED | HIRED WORKERS | FIXED  WORKERS |
| 1 | 70000 | 90000 | 20000 | 90000/1250=72 | 72-40=32 |  |
| 2 | 100000 | 90000 | 10000 | 90000/1250=72 |  |  |
| 3 | 50000 | 90000 | 50000 | 90000/1250=72 |  |  |
| 4 | 150000 | 100000 | 0 | 100000/1250=80 | 80-72=8 |  |
| TOTAL | 370000 | 370000 | 80000 |  | 40 |  |

SO THAT THE COST = (370000\*10)+ (80000\*1)+(40\*50)

**=$38000000**

**Therefore C is the very cheapest.**