6-14:

1.Selling price per unit 60

CM 40%

VE 60%

 So VE per unit 60\*60%=36 tk

Req 2:

1. Break even point in units using equation method:

Sales= Variable Exp+ Fixed expense +profit

60 Q= 36 Q+360000+0

60q-36q=360000

24Q=360000

Q= 15000 units

Sales= Variable Exp+ Fixed expense +profit

x= .6x+360000+0

.4x=360000

x=360000/.4

=900000 Tk

Break even point in sales

Break even unit\*Selling price per unit

15000\*60=900000Tk

1. Sales= Variable Exp+ Fixed expense +profit

60 Q= 36 Q+360000+90000

60q-36q=450000

24Q=450000

Q= 18750 units

Sales= Variable Exp+ Fixed expense +profit

x= .6x+360000+90000

.4x=450000

x=450000/.4

=1125000 Tk

c) 60 Q= 33 Q+360000+0

60q-33q=360000

27Q=360000

Q= 13333 units Break even units

Req 3: Using contribution margin method:

Break even point in units

Fixed Expense/CM per unit

 360000/24=15000 units

Break even point in sales

Fixed exp/CM ratio

360000/.4=900000Tk

ii) Fixed exp+ target profit/CM per unit

 360000+90000/24

 =18750 units

 Fixed exp+ target profit/CM ratio

 360000+90000/.4

 =1125000 Tk

 Amount in sales 18750\*60=11,25000

iii) Fixed exp/CM per unit

 360000/27

 =13333 units

Fixed exp/CM ratio

360000/.45

=800000 Tk

6-16

1. 135000/27=5000 units 5000\*90=450000 Tk

2.Selling price 90 tk

Assume Selling price will Increase 10%

Now selling price will be 90+9=99Tk

Variable exp 63Tk

10 %increase now Variable exp 63+6.3=69.3Tk

Break even point in unit=FE/CM per unit

 135000/29.7=4545 Units\*99=449955 tk

**I/S Present**

Sales 90\*8000=720000

\_ VE 63\*8000=504000

CM 216000

\_FE 135000

NI 81000

**I/S Proposed**

Sales (90-9=81)\*10000=810000

\_ VE 63\*10000= 630000

CM 180000

\_FE 135000

NI 45000

We should not accept this proposed change

FE/CM per unit

135000+72000/18=11500 units