Solution of Group A:

Q1:

Overall direct material variance=A.C. of Dir. Mat. - S.C of Dir. Mat. Actual Production

Actual cost of direct material A=2600*0.25=650
Actual cost of direct material B=2700*0.28=756 =**1406**
Standard cost of direct material for Actual Production =50*(50*0.2+50*0.3)=1250
=1406-1250=156 Un Fav.
Price variance of dir. Mat. =(Actual Price – Standard Price) Actual Quantity
A= (0.250-0.200)2600=130 Un Fav.
B= (0.280-0.300)2700=54 Fav. 76 Un Fav.
Efficiency variance of dir. Mat. =(Actual Quantity – Standard Quantity) Actual Price
A=(2600 -2500)0.200 = 20 Un Fav.
B=(2700 - 2500)0.300 = 60 Un Fav.80 Un Fav.156 Un Fav.
Mixed variance of dir. Mat. =**(Actual Quantity at actual mix – Standard Quantity at Standard mix) Standard Price**
A=(2600 - 5300*50%)0.200 = 10 Fav.
B=(2700 - 5300*50%)0.300 = 15 Un Fav.5 Un Fav.
Yield Variance= (Actual Production- Standard Production from actual inputs)Average of Standard cost of Dir.Mat. per unit
= (50 – 5300/100)25 =75 Un Fav.

Q2: flexible budget

ITEMS	per unit	5600	5000	4400
Variable cost:				
indirect material (variable)	4000	22400000	20000000	17600000
indirect labor (variable)	2000	11200000	10000000	8800000
lighting cost (variable)	2000	11200000	10000000	8800000
Maintenance variable	2000	11200000	10000000	8800000
Other (variable)	4000	22400000	20000000	17600000
Total variable cost	**14000**	**78400000**	**70000000**	**61600000**
fixed cost				
salaries (fixed)		20000	20000	20000
Other (fixed)		10000	10000	10000
Total fixed cost		**30000**	**30000**	**30000**
Total cost		**78430000**	**7030000**	**61630000**

Solution of Group B:

Q1:

Overall direct material variance=A.C. of Dir. Mat. - S.C of Dir. Mat. Actual Production

Actual cost of direct material A=550000*0.250=137500
Actual cost of direct material B=270000*0.600=162000 =**299500**
Standard cost of direct material for Actual Production =5000*(100*0.25+50*0.500)=**250000**
=299500-250000=49500 Un Fav.
Price variance of dir. Mat. =(Actual Price – Standard Price) Actual Quantity
A= (0.250-0.250)550000=0
B= (0.600-0.500)270000=27000 Un Fav.
Efficiency variance of dir. Mat. =(Actual Quantity – Standard Quantity) Actual Price
A=(550000 -500000)0.250 = 12500 Un Fav.
B=(270000 - 250000)0.500 = 10000 Un Fav.22500 Un Fav. 49500 Un Fav.
Mixed variance of dir. Mat. =**(Actual Quantity at actual mix – Standard Quantity at Standard mix) Standard Price**
A=(550000 -820000*100/150)0.250 = 833.325 Un Fav.
B=(270000 – 820000*50/150)0.500 = 1666.65 Fav. 833.325 Fav.
Yield Variance= (Actual Production- Standard Production from actual inputs)Average of Standard cost of Dir.Mat. per unit
= (50000 – 820000/150)50 =23333.333 Un Fav.
22500 Un Fav.

Q2: flexible budget

ITEMS	per unit	11200	10000	8800
Variable cost:				
indirect material (variable)	5000	56000000	50000000	44000000
indirect labor (variable)	1000	11200000	10000000	8800000
lighting cost (variable)	2500	28000000	25000000	22000000
Maintenance variable	3000	33600000	30000000	26400000
Other (variable)	4000	44800000	40000000	35200000
Total variable cost	**15500**	**173600000**	**155000000**	**136400000**
fixed cost				
salaries (fixed)		20000	20000	20000
Other (fixed)		15000	15000	15000
Total fixed cost		**35000**	**35000**	**35000**
Total cost		**173635000**	**155015000**	**136435000**