

**UDHNA CITIZEN COMMERCE COLLEGE &
S.P.B. COLLEGE OF BUSINESS ADMINISTRATION &
SMT. DIWALIBEN HARJIBHAI GONDALIA COLLEGE OF BCA & IT
(Self Financed)**

(Managed by Udhna Academy Education Trust)

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Class: T.Y.B.Com. (Sem. 6)

Subject: Advanced Accounting & Auditing 8

SOLUTION FOR PRACTICE-2

FLEXIBLE BUDGET

Ans 1.	SALES EXPENSE	
	V.C (PU)	$\frac{38000-30000}{1000-600}$ $= 8000 / 400$ $= 20$ Rs./unit
	At 100% (Total Variable Cost)	$= 1000 \text{ units} \times 20 \text{ Rs pu}$ $= \text{Rs } 20,000$ Therefore, Fixed cost = 38000 – 20,000 $= \text{Rs. } 18,000$
	At 80% production (800 units produced)	Fixed cost = Rs. 18,000 $\text{VC} = 800 \text{ units} \times 20 \text{ Rs pu} = 16,000$ Therefore , Total cost = 18000 + 16000 = Rs. 34000

Ans 2.

Production capacity	70% (Rs.)	80% (Rs.)	90% (Rs.)
Power SV	Variable $70 \times 17.5 = 1225$ + fixed 600 = 1825	2000	2175
Indirect Labour V	1050 $1050/70 = 15$ per %	80×15 1200	1350
Repairs SV	190	200	Variable = $90 \times 1 = 90$ + fixed $120 = 210$
Salaries F	1000	1000	1000

Segregation of power into fixed and variable

80	2000
90	2175
10	175

Per % variable $175/10 = 17.5$

Power @ 80%	2000
Less variable 80×17.5	1400
Fixed	600

Segregation of repairs into fixed and variable

70	190
80	200
10	10

Per % variable = $10/10 = 1$

Repairs @ 70	190
Less variable 70×1	70
Fixed	120

Ans 3.

	80% (11200	100% (15400
	hours)	hours)
Upto 5200 hours	120 Rs	120 Rs
5201 to 6400	40 Rs	40 Rs
6401 to 7600	40 Rs	40 Rs
7601 to 8800	40 Rs	40 Rs
8801 to 10000	40 Rs	40 Rs
10001 to 11200	40 Rs	40 Rs
11201 to 13400	--	30 Rs
More than 13400	--	25 Rs
TOTAL	Rs. 320	Rs. 375

Ans 4.

Number of units produced at present = $13550000/2710 = 5000$ units

Particulars	5000 units		4000 units (5000-20%)		6000 units (5000+20%)	
	Per unit	Total	Per unit	Total	Per unit	Total
Material	1000	5000000	1000	4000000	1000	6000000
wages						
Variable	400	2000000	400	1600000	400	2400000
Fixed	400	2000000	500	2000000	333.33	2000000
Power						
Variable (80%)	40	200000	40	160000	40	240000
Fixed (20%)		50000		50000		50000
Other materials						
Variable (80%)	32	160000	32	128000	32	192000
Fixed (20%)		40000		40000		40000
Supervision charges						
Variable (20%)	4	20000	4	16000	4	24000
Fixed (80%)		80000		80000		80000

Repair charges						
Variable (75%)	60	300000	60	240000	60	360000
Fixed (25%)		100000		100000		100000
Depreciation (100% fixed)		2000000		2000000		2000000
Administrative exp						
Variable (25%)	50	250000	50	200000	50	300000
Fixed (75%)		750000		750000		750000
Selling exp						
Variable (50%)	60	300000	60	240000	60	360000
Fixed (50%)		300000		300000		300000
Total cost		13500000		11904000		15196000

Ans 5.

Segregation of semi variable expenses in to fixed and variable

Repairs and maintenance

At 2800 units	5000
At 3600 units	5600
Change in units 800	Change in exp 600

Per unit variable = $600/800 = 0.75$

At 2800 units total	5000
Less variable 2800×0.75	2100
Fixed	2900

Power

At 2800 units	18000
At 3600 units	20000
Change in units 800	Change in exp 2000

Per unit variable = $2000/800 = 2.5$

At 2800 units total	18000
Less variable 2800×2.5	7000
Fixed	11000

Inspection

At 2800 units	2000
At 3600 units	2400
Change in units 800	Change in exp 400

Per unit variable = $400/800 = 0.5$

At 2800 units total	2000
Less variable 2800×0.5	1400
Fixed	600

Wages per unit

1 hour	40 rs
1 hour	10 units
Per unit	$40/10 = 4$

	60% (2400)		80%(3200)		100% (4000)	
	Per unit	Total	Per unit	Total	Per unit	Total
Material	10	24000	10	32000	10	40000
Wages	4	9600	4	12800	4	16000
Repairs and maintenance						
Variable	0.75	1800	0.75	2400	0.75	3000
Fixed		2900		2900		2900
Power						

Variable	2.5	6000	2.5	8000	2.5	10000
Fixed		11000		11000		11000
Shop labour (variable) $7000/2800=2.5$	2.5	6000	2.5	8000	2.5	10000
Consumable stores (variable) $14000/2800$	5	12000	5	16000	5	20000
Salary (fixed)		10000		10000		10000
Inspection						
Variable	0.5	1200	0.5	1600	0.5	2000
Fixed		600		600		600
Depreciation (fixed)		14000		14000		14000
Total cost	41.29	99100	37.28	119300	34.88	139500

Ans.6

Flexible budget

	50%	60%	75%	90%	100%
Fixed expenses					
Wages and salaries	950000	950000	950000	950000	950000
Rent, rates and taxes	660000	660000	660000	660000	660000
Depreciation	740000	740000	740000	740000	740000
Sundry admn.	650000	650000	650000	650000	650000
Total fixed expenses A	3000000	3000000	3000000	3000000	3000000
Semi variable expenses					
Maintenance and repairs	350000	350000	$350000+35000=385000$	$350000+70000=420000$	420000

indirect labour	790000	790000	790000+79000 =869000	790000+158000 =948000	948000
Sales dept. salaries	380000	380000	380000+38000 =418000	380000+76000 =456000	456000
Sundry admn. Exp	280000	280000	280000+28000 =308000	280000+56000 =336000	336000
Total B	1800000	1800000	1980000	2160000	2160000
Variable expenses					
Material	2170000	2604000	3255000	3906000	4340000
Labour	2040000	2448000	3060000	3672000	4080000
Other exp.	790000	948000	1185000	1422000	1580000
Total C	5000000	6000000	7500000	9000000	10000000
Total cost A+B+C	9800000	10800000	12480000	14160000	15160000
Profit	200000	1200000	2520000	3840000	4840000
Sales	10000000	12000000	15000000	18000000	20000000

Ans.7

Particulars	50%(5000)		75% (7500)		100% (10000)	
	Per unit	Total	Per unit	Total	Per unit	total
Material	30	150000	30	225000	30	300000
Wages	30	150000	30	225000	30	300000
Prime cost	60	300000	60	450000	60	600000
Factory OH at 50% 200000						
Fixed 40% 80000	16	80000		80000		80000
Variable 30% (20% of prime cost) 60000	12	60000	12	90000	12	120000

Semi variable 30%60000	12	60000		60000+30000 =90000		60000+60000 =120000
Factory cost	100	500000	94.67	710000	92	920000
Administrative OH 200000						
Fixed 70%	28	140000		140000		140000
Variable 30%	12	60000	12	90000	12	120000
Cost of production	140	700000	125.33	940000	118	1180000
Selling and distribution exp 100000						
Fixed 50%	10	50000		50000		50000
Variable 50%	10	50000	10	75000	10	100000
Total Cost 100	160	800000	142	1065000	133	1330000
Profit 25	40	200000	58	435000	67	670000
Sales 125	200	1000000	200	1500000	200	2000000

Factory OH		200000
Fixed 40%	80000	
Variable 30% (20% of prime cost)	60000	
Semi variable 30%	60000	
Factory cost	100	500000

Suppose prime cost is 100

Prime cost	100
Factory OH	
Fixed for 30% it is 20 For 40% ? =40*20/30	26.67

Variable 30% (IT IS 20% OF PRIME COST)	20
Semi variable 30%	20
Factory cost	166.67

If factory cost is 166.67 than factory OH is 66.67

So if factory cost is 500000 the amount of factory OH=
 $500000 \times 66.67 / 166.67 = 200000$

Ans-8

Calculation of production (installed capacity i.e. 100% is 100000 units)

	production
For first 6 months at 50%	$100000 \times 50 / 100 \times 6 / 12 = 25000$
For next 4 months at 60%	$100000 \times 60 / 100 \times 4 / 12 = 20000$
For remaining 2 months at 84%	$100000 \times 84 / 100 \times 2 / 12 = 14000$
Total production for the year	59000

Computation of semi variable overhead

For 6 months (50%)	$60000 \times 6 / 12 = 30000$
For 4 months (60%)	$60000 + 12000 \times 4 / 12 = 24000$
For 2 months (84%)	$60000 + 12000 + 12000 \times 2 / 12 = 14000$

Flexible budget

	First 6 months (50%) 25000 units		Next 4 months (60%) 20000 units		Remaining 2 months (84%) 14000 units	
	Per unit	Total	Per unit	Total	Per unit	Total
Material	20	500000	20	400000	20	280000

Wages 10 (subject to a minimum of Rs. 50000 per month)	12	300000	10	200000	10	140000
Variable Overheads	5	125000	5	100000	5	70000
Fixed overhead		120000*6/12 60000		120000*4/12 40000		120000*2/12 20000
Semi variable overhead		30000		24000		14000
Total cost		1015000		764000		524000

For 6 month	1015000
Add for 4 months	764000
Add for 2 months	524000
Per year total cost	2303000
Add profit	647000
Sales	2950000
Divided by number of units produced	59000
Selling price per unit	50

Ans-9

Following info. Available from the mfg. co. two levels of activity per unit.

Particulars	50%	5000	80%	8000
Mfg. cost	7.50	V	7.50	V
Labour	3.50	V	3.50	V
Power	0.40	2000s	0.37	2960s
Stores	0.60	V	0.60	V
Maintenance	0.20	1000F	0.125	1000F

Inspection	0.20	1000s	0.14	1120s
Dep.	3	15000F	1.875	15000F
Administrative overhead	4	20000s	2.80	22400s
Selling overhead	0.60	3000s	0.487	3896s
	20		17.397	

Total production at 50% cap. is 5000 units. Prepare a flexible budget per unit at 40% ,100% capacity.

Segregation of semi variable expenses

Power	
At 5000 units	2000
At 8000 units	2960
Change in units 3000	Change in exp 960

Per unit change = $960/3000 = 0.32$

At 5000 units	2000
Less variable $5000*0.32$	1600
Fixed	400

Inspection	
At 5000 units	1000
At 8000 units	1120
Change in units 3000	Change in exp 120

Per unit change = $120/3000 = 0.04$

At 5000 units	1000
Less variable $5000*0.04$	200
Fixed	800

Administrative OH	
At 5000 units	20000

At 8000 units	22400
Change in units 3000	Change in exp 2400

Per unit change = $2400/3000 = 0.80$

At 5000 units	20000
Less variable 5000×0.80	4000
Fixed	16000

Selling OH	
At 5000 units	3000
At 8000 units	3896
Change in units 3000	Change in exp 896

Per unit change $896/3000 = 0.2986$

At 5000 units	3000
Less variable 5000×0.2986	1493
Fixed	1507

Flexible budget per unit

	40% (4000)	100% (10000)
Manufacturing cost	7.5	7.5
Labour	3.5	3.5
Power		
fixed	$400/4000 = 0.10$	$400/10000 = 0.04$
variable	0.32	0.32
Stores	0.60	0.60
Maintenance fixed	$1000/4000 = 0.25$	$1000/10000 = 0.10$
Inspection		
Fixed	$800/4000 = 0.20$	$800/10000 = 0.08$
Variable	0.04	0.04
Depreciation fixed	$15000/4000 = 3.75$	$15000/10000 = 1.5$
Administrative OH		
Fixed	$16000/4000 = 4$	$16000/10000 = 1.6$
Variable	0.80	0.80

Selling OH		
Fixed	$1507/4000= 0.37675$	$1507/10000=0.1507$
Variable	0.2986	0.2986
Total	21.7356	16.5293

Ans-10

Segregation of semi variable exp

Salary

At 4800 units	312000
At 7200 units	348000
Change in units 2400	Change in exp. 36000
Per unit change	$36000/2400= 15$
Total at 4800 units	312000
Less variable $4800*15$	72000
Fixed exp	240000

Production exp.

At 4800 units	420000
At 7200 units	480000
Change in units 2400	60000 change in exp
Per unit change	$60000/2400 =25$
Total at 4800	420000
Less variable $4800*25$	120000
Fixed	300000

Flexible budget

	40% 4800 units		50% 6000 units		75% 9000 units		90% 10800 units	
	Per unit	Total	Per unit	Total	Per unit	Total	Per unit	Total
Variable exp.								

Material	50	240000	50	300000	50- 5%=47.5	427500	47.5	513000
Wages	30	144000	30	180000	30- 5%=28.5	256500	28.5	307800
Overheads	17.5	84000	17.5	105000	17.5- 5%=16.625	149625	16.625	179550
Semi variable exp								
Salary								
Fixed	50	240000	40	240000	26.67	240000	22.22	240000
Variable	15	72000	15	90000	15- 5%=14.25	128250	14.25	153900
Production exp								
Fixed	62.5	300000	50	300000	33.33	300000	27.78	300000
Variable	25	120000	25	150000	25- 5%=23.75	213750	23.75	256500
Fixed exp								
Depreciation	16.67	80000	13.33	80000	8.89	80000	7.41	80000
Advertisement	2.08	10000	1.67	10000	1.11	10000	0.93	10000
Total cost	268.75	1290000	225	1455000	200.63	1805625	188.96	2040750

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