



R.K.

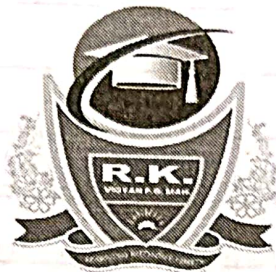
GROUP OF COLLEGE

Behind Kalwar Police Station, Kalwar, Jaipur (Raj.)



ASSIGNMENT

R.K. VIGYAN P.G. MAHAVIDHYALAYA



Affiliated to University of Rajasthan, Approved by Govt. of Raj.)

Kalwar Road, Kalwar, Jaipur (Raj.)

Website : rkgroupofcollege.com , Mob. No. : 9314501146

E-mail : hrshreebalajieducationsamiti@gmail.com

B.A. / B.Sc. / B.Com.

ABST

ASSIGNMENT WORK / MIDTERM TEST

Session 20 24 - 20 25

Semester III rd sem

Name of Student Komal Choudhary Father's Name Ram Kumar Choudhary

Roll No. Enrollment No.

Year 2024-25 Semester B.Com. III rd sem

Solution :- 1

Date	Receipts			Issues			Balance		
	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount
1.2.17	-	-	-	-	-	-	1,000	2.00	2,000
2.2.17	2,000	2.20	4,400	-	-	-	1,000	2.00	6,400
							2,000	2.20	
4.2.17	-	-	-	1,000	2.20	2,200	1,000	2.00	4,200
							1,000	2.20	
6.2.17	2,000	1.90	3,800	-	-	-	1,000	2.20	8,000
							1,000	2.20	
							2,000	1.90	
8.2.17	-	-	-	1,000	2.20	5,150			2,850
				1,000	2.00		1,500	1.90	
				500	1.90				
12.2.17	2,000	2.10	4,200	-	-	-	1,500	1.90	7,050
							2,000	2.10	
14.2.17	2,000	2.00	4,000	-	-	-	1,500	1.90	11,050
							2,000	2.10	
							2,000	2.00	
15.2.17	-	-	-	2,000	2.10	6,200	1,500	1.90	4,850
				1,000	2.00		1,000	2.00	
25.2.17	-	-	-	1,000	2.00	3,900			950
				1,000	1.90		500	1.90	

Solution :- 2

Date	Receipts			Issues			Balance		
	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount
2017									
1 Oct.	100	6.00	600	-	-	-	100	6.00	600
5 Oct.	200	7.50	1,500	-	-	-	300	7.00	2,100
10 Oct.	-	-	-	150	7.00	1,050	150	7.00	1,050
13 Oct.	100	8.00	800	-	-	-	250	7.480	1,850
15 Oct.	-	-	-	10	7.40	74	240	7.40	1,776
20 Oct.	200	10.00	2,000	-	-	-	440	8.60	3,784
25 Oct.	-	-	-	250	8.60	2,150	190	8.60	1,634

Date	Receipts			Issues			Balance		
	Qty.	Rate	Amount	Qty.	Rate	Amount	Qty.	Rate	Amount
2017									
1 Oct.	100	6.00	600	-	-	-	100	6.00	600
5 Oct.	200	7.50	1,500	-	-	-	300	7.000	2,100
10 Oct.	-	-	-	150	7.00	1,050	150	7.000	1,050
13 Oct.	100	8.00	800	-	-	-	250	7.400	1,850
15 Oct.	-	-	-	10	-	Waste	240	7.708	1,850
20 Oct.	200	10.04	2,008	-	-	-	440	8.768	3,858
25 Oct.	-	-	-	250	8.768	2,192	190	8.765	1,666

Solution :- 3

Particulars	Basis on which Overhead are Recovered				
	Direct materials	Direct wages	Prime Cost	Labour Hours	Units Produced
Direct Materials	4,000	4,000	4,000	4,000	4,000
Direct wages	3,000	3,000	3,000	3,000	3,000
Prime Cost	7,000	7,000	7,000	7,000	7,000
Overhead	1,600	2,000	1,750	1,640	1,500
Works Cost	8,600	9,000	8,750	8,640	8,500
	40% of Direct material	66.67% of Direct wages	25% of Prime Cost	₹ 2 per Labour Hours	₹ 5 per Unit Produced

Working Note :-

Chargeable Overhead of the Deptt. $\times 100$
 Basis on which Overhead are Recovered

(1) Overhead residual rate based on material cost =

$$\frac{40,000}{1,00,000} \times 100 = 40\%$$

(2) Overhead residual rate based on labour cost =

$$\frac{40,000}{60,000} \times 100 = 66.67\%$$

(3) Overhead residual rate based on Time cost =

$$\frac{40,000}{1,60,000} \times 100 = 25\%$$

(4) Overhead residual rate based on labour hours =

$$\frac{40,000}{20,000} = ₹ 2 \text{ per labour hour.}$$

(5) Overhead residual rate based on per unit cost =

$$\frac{40,000}{8,000} = ₹ 5 \text{ per unit.}$$

Solution :- 4

Particulars	₹	Particulars	₹
To materials	90,000	By Profit & Loss A/c	
To wages	1,40,000	Plant lost 5,000	
To Plant	25,000	Material lost 4,000	9,000
To Expenses	7,000	By Plant at site 15,000	
To National Profit b/d	21,000	W.D. Dep. @ 10% 1,500	13,500
		By material in hand	4,000
		By Plant returned 5,000	
		W.D. Dep. @ 10% 500	4,500
		By work-in-progress	
		Certified 2,50,000	
		Uncertified 2,000	2,52,000
	2,83,000		2,83,000
To Profit & Loss A/c	11,200	By National Profit b/d	21,000
To work-in-progress A/c	9,800		
	21,000		21,000

Liabilities	₹	Assets	₹
Share Capital	1,20,000	Land & Building	43,000
Creditors	10,000	Plant at store	4,500
Profit & Loss A/c	2,200	Plant at site	13,500
		Material at site	4,000
		work-in-progress	

		work certified 2,50,000	
		work uncertified 2,000	
		2,52,000	
		less Reserve 9,800	
		2,42,200	
		less: cash received 2,00,000	42,200
		Bank Balance	25,000
	1,32,200		1,32,200

Working Notes :-

(i) :

Particulars	Actual ^{Value}	Rep ^s	Net value
Plant lost	5,000	-	-
Plant returned	5,000	500	4,500
Plant at site	15,000	1,500	13,500
	25,000	2,000	18,000

(ii) work certified = $\frac{\text{Cash Received}}{\% \text{ of Cash Received to work Certified}}$

$$2,00,000 \times \frac{100}{80} = ₹ 2,50,000$$

(iii) Profit to P & L A/c = National Profit $\times \frac{2}{3}$ $\times$ Cash Received
work verified

$$= 21,000 \times \frac{2}{3} \times \frac{80}{100} = ₹ 11,200$$

(iv) Net profit in balance sheet = Profit - Loss of plant and material

$$= ₹ 11,200 - ₹ 9,000 = ₹ 2,200$$

Solution:- 5

$$(i) \text{ P/V Ratio \%} = \frac{\text{Change in Profits}}{\text{change in sales}} \times 100$$

$$= \frac{20,000 - (10,000)}{2,50,000 - 1,00,000} \times 100$$

$$= \frac{30,000}{1,50,000} \times 100 = 20\%$$

(ii) BEP : For this purpose the fixed cost will be calculated as under :

$$\begin{aligned} \text{Fixed cost} &= (\text{Sales} \times \text{P/V Ratio}) - \text{Profit} \\ &= (2,50,000 \times 20\%) - 20,000 = ₹ 30,000 \end{aligned}$$

$$\text{Now BEP} = \frac{\text{Fixed cost}}{\text{PV Ratio}} = \frac{30,000}{20\%} = ₹ 1,50,000$$

(iii) Variable cost of each other's year =
Sales for the year $\times (1 - \text{P/V Ratio})$

$$(a) \text{ VC for the year 2015-16} = 1,00,000 \times (1 - 20\%) = 80,000$$

$$(b) \text{ VC for the year 2016-17} = 2,50,000 \times (1 - 20\%) = 2,00,000$$

(iv) Sales to earn a profit of ₹ 40,000 :

$$\text{Required Sales} = \frac{\text{Desired Profit} + \text{FC}}{\text{P/V Ratio}}$$

$$= \frac{40,000 + 30,000}{20\%} = ₹ 3,50,000$$

(v) Margin of safety at a profit of ₹ 2,000

$$\text{Margin of safety} = \frac{\text{Desired Profit}}{\text{P/V Ratio}}$$

$$= \frac{2,000}{20\%} = ₹ 10,000$$

Solution :- 6

Category	Standard Time	Actual Time
Grade A	$90 \times 1,000 = 90,000$	$80 \times 900 = 72,000$
Grade B	$60 \times 1,000 = 60,000 = 1,50,000$	$70 \times 900 = 63,000 = 1,35,000$

Standard hours for actual output =

$$\frac{\text{Standard hours}}{\text{Standard output}} \times \text{Actual output}$$

$$\text{Standard hours for Grade A} = \frac{90,000}{4,000} \times 4,100$$

$$= 92,250 \text{ hrs.}$$

$$\text{Standard hours for Grade B} = \frac{60,000}{4,000} \times 4,100$$

$$= 61,500 \text{ hrs.}$$

$$= 1,53,750 \text{ hrs.}$$

$$\text{RSH for Mode A} = \frac{92,250 \times 1,35,000}{1,53,750} = 81,000$$

$$\text{RSH for Mode B} = \frac{61,500 \times 1,35,000}{1,53,750} = 54,000$$

$$= 1,35,000 \text{ Hours.}$$

Category	Standard			Actual			Revised
	Time	Rate	Cost	Time	Rate	Cost	Time
	ST	SR	SC	AT	AR	AC	RST
Mode A	92,250	2	1,84,500	72,000	2.50	1,80,000	81,000
Mode B	61,500	3	1,84,500	63,000	2.00	1,26,000	54,000
Total	1,53,750	-	3,69,000	1,35,000	-	3,06,000	1,35,000

$$\text{LCV} = \text{TSC} - \text{TAC} = 3,69,000 - 3,06,000 = 63,000 (F)$$

$$\text{LRV} = \text{AT} (SR - AR)$$

$$\text{Mode A} : 72,000 (2 - 2.50) = 36,000 (A)$$

$$\text{Mode B} : 63,000 (3 - 2.00) = 63,000 (F) = 27,000 (F)$$

$$\text{LEV} = \text{SR} (ST - AT)$$

$$\text{Mode A} : 2 (92,250 - 72,000) = 40,500 (CF)$$

$$\text{Mode B} : 3 (61,500 - 63,000) = 4,500 (A) = 36,000 (F)$$

$$LREV = SR (ST - RST)$$

$$\text{Made A : } 2 (82,250 - 81,000) = 22,500 (F)$$

$$\text{Made B : } 3 (61,500 - 54,000) = 22,500 (F) = 45,000 (F)$$

$$LMV = SR (RST - AT)$$

$$\text{Made A : } 2 (81,000 - 72,000) = 18,000 (F)$$

$$\text{Made B : } 3 (54,000 - 63,000) = 27,000 (A) = 9,000 (A)$$

$$\text{Standard cost per unit} = \frac{\text{Standard Cost}}{\text{Standard Output}}$$

$$= \frac{3,69,000}{4100} = 90$$

$$SY = \frac{\text{Standard Output} \times \text{Actual Hours}}{\text{Standard Hours}}$$

$$= \frac{4,000 \times 1,35,000}{1,50,000}$$

$$= 3,600$$

$$\text{Labour yield Variance} = \text{Standard cost per hour (AY-SY)} \\ = 90(4,100 - 3,600) = ₹ 45,000 (F)$$

Verification :-

$$LCV = LRV + LEV \text{ OR } 63,000(F) = 27,000(F) + 36,000(F)$$

$$LEV = LMV + LREV \text{ OR } 36,000(F) = 9,000(A) + (₹) 45,000(F)$$

$$LREV = LYV \text{ OR } 45,000(F) = 45,000(F)$$

Solution : 7

The following data are obtained from the records of a factory

	₹	₹
Sales 5,000 units @ ₹ 25 each		1,25,000
Material consumed	50,000	
Variable overheads	12,500	
Labour charges	25,000	
Fixed overheads	22,500	1,10,000
		15,000

Calculate :

- (i) BEP in units ;
- (ii) Sales required to earn a profit of 20% on sales
- (iii) Extra units to be sold to obtain the present profit if it is proposed to reduce the selling price by 20%
- (iv) Selling price to be fixed to bring BEP to 500 units under present conditions.

Solution :-

$$\text{Contribution} = \text{Sales} - \text{Variable Cost} = 1,25,000 - (50,000 + 12,500 + 25,000) = 37,500$$

$$\text{Contribution per unit} = \text{C} \div \text{units} = 37,500 \div 5,000 = 7.5.$$

$$\text{P/V Ratio} = \frac{S - V}{S} \times 100$$

$$= \frac{1,25,000 - 87,500}{1,25,000} \times 100$$

$$= 30\%$$

$$(i) \text{ BEP [In units]} = \frac{F}{\text{C per unit}} = \frac{22,500}{7.5}$$

$$= 3,000 \text{ units.}$$

(ii) Assumed sales is ₹ x to earn a profit of 20% on sales.

$$\text{Sales} = x, \text{ Profit} = 20\% \text{ of } x \text{ or } ₹ 0.2x$$

$$\begin{aligned}\text{Contribution} &= \text{Fixed Cost} + \text{Profit} \\ &= 22,500 + 0.2X\end{aligned}$$

$$\begin{aligned}\text{Required sales (X)} &= \frac{C}{\text{P/V Ratio}} = \frac{22,500 + 0.2X}{30} \times 100 \\ &= X\end{aligned}$$

$$\text{OR } 0.3X = 22,500 + 0.2X$$

$$\text{OR } 0.3X - 0.2X = 22,500$$

$$\text{OR } 0.1X = 22,500 \quad \text{OR } X = ₹ 2,25,000$$

(iii) Sales price reduce by 20%.

$$\begin{aligned}\text{Present contribution} &= F + P = 22,500 + 15,000 \\ &= 37,500\end{aligned}$$

$$\text{New selling price} = 25 - 20\% \text{ of } 25 = 20$$

$$\begin{aligned}\text{Variable cost per unit} &= (59,000 + 12,500) \div \\ &5,000 = 17.5\end{aligned}$$

$$\text{New contribution per unit} = 20 - 17.5 = 2.5$$

$$\begin{aligned}\text{Required units to earn existing profit} &= \\ &\frac{\text{Desired contribution}}{C \text{ Per unit}}\end{aligned}$$

$$= \frac{37,500}{2.5} = 15,000 \text{ units, Extra units}$$

$$15,000 - 5,000 = 10,000 \text{ units}$$

(iv) Contribution per unit = Selling price - Variable cost per unit.

$$\text{Selling price} = \text{Contribution per unit} + \text{Variable cost per unit.}$$

At BEP contribution is equal to fixed cost and if BEP is reduced to 500 units contribution per unit should be $22,500 \div 500 = 45$ per unit.

$$\begin{aligned} \text{Required selling price at new BEP} &= \text{VC per unit} + \text{F per unit} \\ &= 17.5 + 45 = ₹ 62.5 \text{ per unit.} \end{aligned}$$

Solution :- 8

$$\text{RSQ of material 'A'} = \frac{\text{Standard Input of 'A'}}{\text{Total standard Input}} \times \text{Actual Input}$$

$$= \frac{200}{300} \times 330 = 220$$

$$\text{RSQ of material 'B'} = \frac{\text{Standard Input of 'B'}}{\text{Total standard Input}} \times \text{Actual Input}$$

$$= \frac{100}{300} \times 330 = 110$$

$$\text{Actual consumption of 'A'} = 220 - 15\% \text{ of } 220 = 187$$

$$\text{Actual consumption of 'B'} = 110 + 30\% \text{ of } 110 = \frac{143}{330}$$

$$\text{Material Min Variance (MMV)} = SP(RSQ - AQ)$$

$$\text{For Material A : } 12(220 - 187) = 396 (F)$$

$$\text{For Material B : } 10(110 - 143) = 330 (A)$$

$$= 66 (F)$$