1. **(i)** **(d)** Monthly Production of X = 30,000 kgs.

Raw Material Required = $\dfrac{30{,}000}{3} \times 5$ = 50,000 kgs.

Material A = $\dfrac{50{,}000}{5} \times 3$ = 30,000 kg.

Material B = $\dfrac{50{,}000}{5} \times 2$ = 20,000 kg.

(ii) **(a)** Calculation of Economic Order Quantity (EOQ):

Material A $= \sqrt{\dfrac{2 \times \text{Annual consumption} \times \text{Order cost}}{\text{Carrying cost per unit p.a.}}}$

$= \sqrt{\dfrac{2 \times (30{,}000 \times 12) \times 1{,}200}{15\% \ of \ 30}}$ = 13,856 kg.

Material B $= \sqrt{\dfrac{2 \times (20{,}000 \times 12) \times 1{,}200}{5\% \ of \ 44}}$ = 16,181 kg.

(iii) **(b)** Calculation of Maximum Stock level: Since, the Material A is perishable in nature and it required to be used within 10 days, hence, the Maximum Stock Level shall be lower of two:

(a) Stock equal to 10 days consumption

$= \dfrac{30000}{25} \times 10 \ days$ = 12,000 kg.

(b) Maximum Stock Level for Material A:

Re-order Quantity + Re-order level – (Min consumption* × Min. lead time)

Where, Re-order Quantity = 15,000 kg.

Re-order level	= Max. Consumption* × Max. Lead time
	= 30,000/25×2 days=2,400 kg.
Maximum stock Level	= 15,000 kg. + 2,400 kg. - (30,000/25 × 1 day)
	= 17,400 – 1,200 = 16,200 kg.

Stock required for 10 days consumption is lower than the maximum stock level calculated through the formula. Therefore, Maximum Stock Level will be 12,000 kg.

(*Since, production is processed evenly throughout the month hence material consumption will also be even.)

(iv) (b) Calculation of Savings/ loss in Material A if purchase quantity equals to EOQ.

	Purchase Quantity = 15,000 kg.	Purchase Quantity = EOQ i.e. 13,856 kg.
Annual consumption	3,60,000 kg. (30,000 × 12 months)	3,60,000 kg. (30,000 × 12 months)
No. of orders [Note- (i)]	30 (3,60,000 ÷ 12,000)	30 (3,60,000 ÷ 12,000)
Ordering Cost (a)	₹ 36,000 (₹ 1200 × 30)	₹ 36,000 (₹ 1200 × 30)
Carrying Cost (b) [Note- (ii)]	₹30,375 (15% of ₹ 27 × 7,500)	₹31,176 (15% of ₹ 30 × 6,928)
Purchase Cost (c) (for good portion)	₹ 97,20,000 (₹ 27 × 3,60,000)	₹ 1,08,00,000 (₹ 30 × 3,60,000)
Loss due to obsolescence (d) [Note- (iii)]	₹ 24,30,000 [₹ 27 × (30 × 3,000)]	₹16,70,400 [₹ 30 × (30 × 1,856)]
Total Cost [(a) + (b) + (c) + (d)]	₹ 1,22,16,375	₹ 1,25,37,576

Purchasing of material - A at present policy of 15,000 kg. saves ₹ 3,21,201.

Notes: (i) Since, material gets obsolete after 10 days, the quantity in excess of 10 days consumption i.e. 12,000 kg. are wasted. Hence, after 12,000 kg. a fresh order needs to be given.

(ii) Carrying cost is incurred on average stock of Materials purchased.

(iii) the excess quantity of material gets obsolete and loss has to be incurred.

(v) (c) Minimum Stock Level for Material A

= Re-order level – (Average Consumption Rate x Average Re-order Period)

= 2400 – (1200 x 1.5) = 600 kgs

Re-order level   = Max. Consumption* × Max. Lead time

                       = 30,000/25 × 2 days = 2,400 kg.

2. (i) (d) Budgeted   Machine   hour   rate   (Blanket   rate)

= $\dfrac{₹\ 50,40,000}{6,000\ hours}$ = ₹840 per hour

(ii) (a)

(iii) (a)

	Amount (₹)	Amount (₹)
Total production overheads actually incurred during the period		34,08,000
Less: Amount paid to worker as per court order	4,50,000	
Expenses of previous year booked in the current year	1,00,000	
Wages paid for the strike period under an award	4,20,000	
Obsolete stores written off	36,000	10,06,000
		24,02,000
Less: Production overheads absorbed as per machine hour rate (3,000 hours × ₹840*)		25,20,000
Amount of over absorbed production overheads		1,18,000

* Budgeted Machine hour rate (Blanket rate) calculated in part (i)

(iv) (b) Accounting treatment of over absorbed production overheads:
As, 40% of the over absorbed overheads were due to defective production policies, this being abnormal, hence should be credited to Costing Profit and Loss Account.

Amount to be credited to Costing Profit and Loss Account

= ₹1,18,000× 40% = ₹47,200.

Balance of over absorbed production overheads should be distributed over Works in progress, Finished goods and Cost of sales by applying supplementary rate*.

Amount to be distributed = ₹1,18,000× 60% = ₹70,800

Supplementary rate =

(v) (c) Apportionment of over absorbed production overheads over WIP, Finished goods and Cost of sales:

	Equivalent completed units	Amount (₹)
Work-in-Progress (80,000 units × 50% × 0.472)	40,000	18,880
Finished goods (20,000 units × 0.472)	20,000	9,440
Cost of sales (90,000 units × 0.472)	90,000	42,480
Total	1,50,000	70,800

3. **(b)** Let the wages be 'X'

Therefore:

Material	2,40,000
Wages	'X'
Prime cost	2,40,000 + X
Factory overheads	0.75X
Factory cost	2,40,000 + 1.75X
Quality control cost and research and development cost	20% (2,40,000 + 1.75X)
Cost of Production	75,000
288000 + 2.1X	= 7,50,000
X	= 2,20,000

4. **(b)** Rooms days

Summer	200 x 80% x 30 x 4 =	19,200
Winter	200 x 25% x 30 x 4 =	6,000
Autumn	200 x 60% x 30 x 4 =	14,400
Total room days:		39,600

5. **(a)** Variable overhead cost variance: Standard Variable overheads - Actual variable overheads

8,000/2,500 x 3,000 – 10,000 = 400A

Fixed overhead cost variance: Standard fixed overheads - Actual fixed overheads

12,000/2,500 x 3,000 – 11,800 = 2,600F

6. **(c)** Equivalent Units:

Units transferred: 24,000 x 100%	=	24,000
Closing WIP: 2,500 x 60%	=	1,560
Total Equivalent units		25,560

7. **(a)** If final sales are ₹ 50,000 and separable costs are ₹ 35,000, then net realizable value will be ₹15,000.

PART-II – Descriptive Questions

1. (a) **Calculation of Total Cost and Selling Price**

		Job XYZ (₹)		Job MNO (₹)
Direct material		15,400		10,800
Direct labour				
Department A	(20 x ₹76)	1,520	(16 x₹ 76)	1,216
Department B	(12 x ₹70)	840	(10 x ₹70)	700
Department C	(10 x ₹ 68)	680	(14 x ₹68)	952
Total Direct cost		18,440		13,668
Overhead:				
Department A	(20 x ₹12.86)	257.20	(16 x ₹12.86)	205.76
Department B	(12 x ₹12.40)	148.80	(10 x ₹12.40)	124.00
Department C	(10 x ₹ 14.03)	140.30	(14 x ₹ 14.03)	196.42
Total cost		18,986.30		14,194.18
Profit (note)		6,328.77		4,731.39
Quoted selling price		25,315.07		18,925.57

Note: If profit is 25% on selling price this is the same as 33 1/3 % (25/75) on cost.

	(₹)
Selling price	100
Cost	75
Profit	25

(b) (i) **Calculation of Administration cost:**

Particulars	Amount (₹)
Salary paid to office staffs	8,20,000
Fees paid to auditors	92,000
Vehicle hire charges paid for directors attending general meeting	10,200
Fees paid to independent directors	1,02,000
	10,24,200

(ii) **Calculation of Selling cost:**

Particulars	Amount (₹)
Salary paid to sales manager	8,00,000
Wages paid to workers engaged in storing goods at sales depot	7,200
Travelling allowance paid to sales staffs	9,600
Electricity bill paid for sales office	1,800

Bonus paid to sales staffs for achieving targets	96,000
	9,14,600

(iii) Calculation of Distribution cost:

Particulars	Amount (₹)
Cost paid for secondary packing	8,200
Depreciation on goods delivery vehicles	13,000
	21,200

(c) **(i)** Separation method

$$= \frac{\text{Number of workers separated during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{29+85}{(1900+2250)/2} \times 100 = 5.49\%$$

(ii) Replacement method

$$= \frac{\text{Number of workers replaced during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{480}{(1900+2250)/2} \times 100 = 23.13\%$$

(iii) Flux method

$$= \frac{\text{Number of workers separated+ Number of workers replaced during the year}}{\text{Average number of workers on roll during the year}} \times 100$$

$$= \frac{114+480}{(1900+2250)/2} \times 100 = 28.63\%$$

2. (a) <div align="center">**Process Account**</div>

Particulars		Units	Amount	Particulars		Units	Amount
			₹				₹
To	Units introduced	50,000	1,47,000	By	Normal loss @ ₹ 1	1,500	1,500
To	Direct material		1,38,300	By	Abnormal loss*	1,200	6,960
To	Direct wages		65,550	By	Finished production*	39,300	3,65,490
To	Production overhead		74,700	By	Closing WIP*	8,000	51,600
		50,000	4,25,550			50,000	4,25,550

<div align="center">**Abnormal Loss Account**</div>

Particulars		Amount	Particulars		Amount
		₹			₹
To	Process A/c	6,960	By	Scrap (120 × ₹ 1)	1,200
			By	Profit and Loss A/c	5,760
		6,960			6,960

*See working notes.

Working Notes:

This is a peculiar question of normal / abnormal loss involving use of equivalent concept. For valuation of abnormal loss, finished production and WIP, first of all equivalent units for them will have to be found out as under:

Statement showing equivalent units

Particulars	Input Materials			Direct wages		P. overheads	
		%	Units	%	Units	%	Units
Abnormal loss	1,200	66.67	800	33.33	400	16.67	200
Finished units	39,300	100.00	39,300	100.00	39,300	100.00	39,300
Clg. WIP	8,000	75.00	6,000	50.00	4,000	25.00	2,000
Total	48,500		46,100		43,700		41,500

Statement of Cost per Equivalent unit for each element

Particulars		Cost	Equivalent Unit	Cost per unit
		₹	₹	₹
Input material	1,47,000			
Less: Scrap realization	1,500	1,45,500	48,500	3.00
Materials added		1,38,300	46,100	3.00
Direct wages		65,550	43,700	1.50
Production overhead		74,700	41,500	1.80

Statement showing cost of Abnormal Loss, finished production and WIP

Particulars	Cost per unit	Equivalent units	Total cost
Abnormal Loss			
Input	1,200	3.00	3,600
Material added	800	3.00	2,400
Direct wages	400	1.50	600
Production overheads	200	1.80	360
			6,960
Finished Production			
Input	39,300	3.00	1,17,900
Material added	39,300	3.00	1,17,900
Direct wages	39,300	1.50	58,950
Production overheads	39,300	1.80	70,740
			3,65,490
Closing WIP			
Input	8,000	3.00	24,000

Material added	6,000	3.00	18,000
Direct wages	4,000	1.50	6,000
Production overheads	2,000	1.80	3,600
			51,600

(b) Standard Quantity of Materials for Actual Output:

P	6,000 × 2	12,000 units
Q	6,000 × 3	18,000 units
R	6,000 × 15	90,000 units
Standard hours for Actual Output:		
	6,000 × 3	18,000 units

Material price Variance:

(Standard Price – Actual Price) × Actual Quantity		₹
P	(₹ 4.00 – ₹ 4.40) × 12,500	5,000 A
Q	(₹ 3.00 – ₹ 2.80) × 18,000	3,600 F
R	(₹ 1.00 – ₹ 1.20) × 88,500	17,700 A
		19,100 A

Material Usage Variance:

(Standard Usage – Actual Usage) × Standard Price

P	(12,000 – 12,500) × ₹ 4.00	2,000 A
Q	(18,000 – 18,000) × ₹ 3.00	Nil
R	(90,000 – 88,500) × ₹ 1.00	1,500 F
		500 A

Labour Rate Variance:

(Standard Rate – Actual Rate) × Actual hours

(₹ 8.00 – ₹ 12.00) × 2,500	10,000 A
(₹ 8.00 – ₹ 8.00) × 15,000	Nil
	10,000 A

Labour Efficiency Variance:

(Standard hours – Actual hours) × Standard Rate

(18,000 – 17,500) × ₹ 8.00	4,000 F

3. (a) Income Statement (under Marginal Costing)

	May	June
	₹ ('000)	₹ ('000)
(A) Sales	12,095	15,340
Variable manufacturing cost	9,600	10,400
Add: opening inventory @ ₹40,000 per unit	–	1,400
Cost of Goods available for sale	9,600	11,800
Less: Closing inventory @ ₹40,000 per Unit	1,400	1,400
Variable cost of goods sold	8,200	10,400
Variable distribution cost	820	1,040
(B) Total variable cost	9,020	11,440
(C) Contribution (A-B)	3,075	3,900
Fixed cost:-Manufacturing	3,200	3,200
Marketing	600	600
(D) Total fixed cost	3,800	3,800
Net Income (C-D)	(725)	100

Income Statement (under Absorption Costing)

	May	June
(A) Sales	12,095	15,340
Variable manufacturing	9,600	10,400
Fixed manufacturing cost	3,200	3,200
	12,800	13,600
Add: opening inventory*	–	1,867
Cost of goods available for sales	12,800	15,467
Less: Closing inventory*	1,867	1,831
Cost of goods sold	10,933	13,636
Add: Distribution cost-variable	820	1,040
Add: Marketing cost-fixed	600	600
(B) Total Cost	12353	15276
Net Income (A-B)	(258)	64

Comments Marginal costing rewards sales while absorption costing rewards production. This means that when sales are more than production, marginal costing produces higher profit and vice versa, when production is more than sales, absorption costing shows higher profit.

In August, absorption costing shows higher profit by ₹6,60,000 (i.e., 19,10,000 – 12,50,000) than marginal costing because production is more than sales . In September marginal costing shows higher profit than absorption costing by ₹ 4,35,000.

Sales are more than production. Difference in profit is exactly equal to difference in inventory values in the two months.

*Working Notes:

In marginal costing inventory is valued at variable manufacturing cost while in absorption costing inventory valuation is done as follows:

For June closing inventory of 35 Units:

	₹
Variable manufacturing cost (35 units @ ₹40,000)	14,00,000
Fixed manufacturing cost (35 units @ ₹12,308)	4,30,780
	18,30,780

Fixed manufacturing cost per unit is calculated as under:

$$\frac{₹\,32,00,000}{260 \text{ units of production}} = ₹\,12,308 \text{ per unit}$$

For May, inventory of 35 units:

	₹
Variable manufacturing cost (35 units @ ₹40,000)	14,00,000
Fixed manufacturing cost (35 units @ ₹13,333)	4,66,667
	18,66,667

$$\text{Fixed manufacturing cost per unit} = \frac{₹\,32,00,000}{240 \text{ units of production}} = ₹\,13,333 \text{ per unit}$$

(b) The two approaches will compute the different profit because of the difference in the stock valuation. This difference is explained as follows in different circumstances.

1. **No opening and closing stock:** In this case, profit / loss under absorption and marginal costing will be equal.

2. **When opening stock is equal to closing stock:** In this case, profit / loss under two approaches will be equal provided the fixed cost element in both the stocks is same amount.

3. **When closing stock is more than opening stock:** In other words, when production during a period is more than sales, then **profit as per absorption approach will be more** than that by marginal approach. The reason behind this difference is that a part of fixed overhead included in closing stock value is carried forward to next accounting period.

4. **When opening stock is more than the closing stock:** In other words, when production is less than the sales, **profit shown by marginal costing will be more** than that shown by absorption costing. This is because a part of fixed cost from the preceding period is added to the current year's cost of goods sold in the form of opening stock.

(c) Financial expenses which are not included in cost accounting are as follows:

- Interest on debentures and deposit
- Gratuity
- Pension
- Bonus of Employee,
- Income Tax,
- Preliminary Expenses
- Discount on issue of Share
- Underwriting Commissions.

4. (a) Journal entries are as follows:

			Dr. ₹	Cr. ₹
1.	Finished stock ledger Control A/c	Dr.	2,10,000	
	To Work-in-Progress Control A/c			2,10,000
2.	Manufacturing Overhead Control A/c	Dr.	90,000	
	To Cost Ledger Control A/c			90,000
3.	Stores Ledger Control A/c	Dr.	1,23,000	
	To Cost Ledger Control A/c			1,23,000
4. *(i)*	Wage Control A/c	Dr.	71,000	
	To Cost Ledger Control A/c			71,000
(ii)	Work-in-progress Control A/c	Dr.	50,000	
	To Wage Control A/c			50,000
(iii)	Manufacturing Overhead Control A/c	Dr.	21,000	
	To Wage Control A/c			21,000
5.	Cost of Sales A/c	Dr.	1,85,000	
	To Finished Stock Ledger A/c			1,85,000
6.	Work-in-Progress Control A/c	Dr.	1,27,000	
	To Stores Ledger Control A/c			1,27,000
7.	Finished Stock Ledger Control A/c	Dr.	5,000	
	To Cost of Sales A/c			5,000
8.	Cost Ledger Control A/c	Dr.	3,000	
	To Stores Ledger Control A/c			3,000
9.	Work-in-Progress Control A/c	Dr.	77,000	
	To Manufacturing Overhead Control A/c			77,000

(b) **(i)**   **Traditional Absorption Costing**

	BABY SOFT-Gold	BABY SOFT-Pearl	BABY SOFT-Diamond	*Total*
(a) Production of soaps (Units)	4,000	3,000	2,000	9,000
(b) Direct labour (minutes)	30	40	60	-
(c) Direct labour hours (a × b)/60 minutes	2,000	2,000	2,000	6,000

Overhead rate per direct labour hour:

= Budgeted overheads ÷ Budgeted labour hours

= ₹ 1,98,000 ÷ 6,000 hours

= ₹ 33 per direct labour hour

Unit Costs:

	BABYSOFT- Gold (₹)	BABYSOFT- Pearl (₹)	BABYSOFT- Diamond (₹)
Direct Costs:			
- Direct Labour	5.00 $\left(\dfrac{10 \times 30}{60}\right)$	6.67 $\left(\dfrac{10 \times 40}{60}\right)$	10.00 $\left(\dfrac{10 \times 60}{60}\right)$
- Direct Material	167.50 $\left(60 \times \dfrac{200}{100}\right)$ $+ \left(20 \times \dfrac{200}{100}\right)$ $+ \left(30 \times \dfrac{15}{100}\right)$ $+ \left(10 \times \dfrac{30}{100}\right)$	215.50 $\left(55 \times \dfrac{300}{100}\right)$ $+ \left(20 \times \dfrac{200}{100}\right)$ $+ \left(30 \times \dfrac{15}{100}\right)$ $+ \left(12 \times \dfrac{50}{100}\right)$	248.50 $\left(65 \times \dfrac{300}{100}\right)$ $+ \left(20 \times \dfrac{200}{100}\right)$ $+ \left(30 \times \dfrac{15}{100}\right)$ $+ \left(15 \times \dfrac{60}{100}\right)$
Production Overhead:	16.50 $\left(33 \times \dfrac{30}{60}\right)$	22.00 $\left(33 \times \dfrac{40}{60}\right)$	33.00 $\left(33 \times \dfrac{60}{60}\right)$
Total unit costs	189.00	244.17	291.50
Number of units	4,000	3,000	2,000
Total costs	**7,56,000**	**7,32,510**	**5,83,000**

(ii)   Activity Based Costing

	BABYSOFT- Gold	BABYSOFT- Pearl	BABYSOFT- Diamond	Total
Quantity (units)	4,000	3,000	2,000	-
Weight per unit (grams)	102 ((60 × .8) + 20 + (30 × .8) + 10))	100 ((55 × .8) + 20 + (30 × .8) + 12))	111 ((65 × .8) + 20 + (30 × .8) + 15))	-
Total weight (grams)	4,08,000	3,00,000	2,22,000	9,30,000
Direct labour (minutes)	30	40	60	-

Direct labour hours	2,000 $\left(4,000 \times \dfrac{30}{60}\right)$	2,000 $\left(3,000 \times \dfrac{40}{60}\right)$	2,000 $\left(2,000 \times \dfrac{60}{60}\right)$	6,000
Machine operations per unit	5	5	6	-
Total operations	20,000	15,000	12,000	47,000

Forklifting rate per gram = ₹ 58,000 ÷ 9,30,000 grams = ₹ 0.06 per gram

Supervising rate per direct labour hour = ₹ 60,000 ÷ 6,000 hours
= ₹ 10 per labour hour

Utilities rate per machine operations = ₹ 80,000 ÷ 47,000 machine operations
= ₹ 1.70 per machine operations

Unit Costs:

	BABYSOFT-Gold (₹)	BABYSOFT-Pearl (₹)	BABYSOFT-Diamond (₹)
Direct Costs:			
- Direct Labour	5.00	6.67	10.00
- Direct material	167.50	215.50	248.50
Production Overheads:			
Forklifting cost	6.12 (0.06 × 102)	6.00 (0.06 × 100)	6.66 (0.06 × 111)
Supervising cost	5.00 $\left(\dfrac{10 \times 30}{60}\right)$	6.67 $\left(\dfrac{10 \times 40}{60}\right)$	10.00 $\left(\dfrac{10 \times 60}{60}\right)$
Utilities	8.50 (1.70 × 5)	8.50 (1.70 × 5)	10.20 (1.70 × 6)
Total unit costs	192.12	243.34	285.36
Number of units	4,000	3,000	2,000
Total costs	**7,68,480**	**7,30,020**	**5,70,720**

5. (a) **Flexible Budget for the period ….**

	80% ₹	90% ₹	100% ₹	110% ₹
Sales	9,60,000	10,80,000	12,00,000	13,20,000
Administration Costs:				
Office Salaries (fixed)	1,10,000	1,10,000	1,10,000	1,10,000
General expenses (2% of Sales)	19,200	21,600	24,000	26,400
Depreciation (fixed)	6,200	6,200	6,200	6,200
Rent and rates (fixed)	9,750	9,750	9,750	9,750
(A) Total Adm. Costs	1,45,150	1,47,550	1,49,950	1,52,350

Selling Costs :				
Salaries (6% of sales)	57,600	64,800	72,000	79,200
Travelling expenses (5% of sales)	48,000	54,000	60,000	66,000
Sales office (2% of sales)	19,200	21,600	24,000	26,400
General expenses (1% of sales)	9,600	10,800	12,000	13,200
(B) Total Selling Costs	1,34,400	1,51,200	1,68,000	1,84,800
Distribution Costs :				
Wages (2% of sales)	19,200	21,600	24,000	26,400
Rent (1% of sales)	9,600	10,800	12,000	13,200
Other expenses (6% of sales)	57,600	64,800	72,000	79,200
(C) Total Distribution Costs	86,400	97,200	1,08,000	1,18,800
Total Costs (A + B + C)	3,65,950	3,95,950	4,25,950	4,55,950

Note : All fixed costs have been assumed to remain unchanged even at 110% capacity. However, in practice, fixed costs may change when capacity utilisation exceeds 100%.

(b) Statement showing cost per patient day

Particulars	Amount (₹)
A. *Variable Cost*	
Food Supplied to patients (₹ 72 × 5,600*)	4,03,200
Laundry charges (₹ 30 × 5,600)	1,68,000
Medicines (₹ 60 × 5,600)	3,36,000
Expert doctors fee (₹ 250 × 5,600)	14,00,000
	23,07,200
B. *Fixed Cost*	
Rent of the premises (₹ 15,000 × 12)	1,80,000
Repairs & Maintenance	10,000
Administrative expenses	72,000
Salary expenses:	
- Supervisors (2 × ₹ 2,000 × 12)	48,000
- Nurses (4 × ₹ 1,500 × 12)	72,000
- Ward Boys (2 × ₹ 1,200 × 12)	28,800
	4,10,800
C Total Cost (A + B)	27,18,000

* Refer to working note -1

(i) Fee should have been charged to earn 75% profit on fees received

Let fee charged is 'X', then profit will be 0.75 X

Total fee: $X - 0.75 X = ₹ 27,18,000$

Or, $X = 1,08,72,000$

Fee should have been charged for per patient-day

$$= \frac{₹1,08,72,000}{5,600} = ₹1941.43$$

6. **(a)** **Difference between fixed and flexible budgets**

S. No.	Fixed Budget	Flexible Budget
1.	It does not change with actual volume of activity achieved. Thus it is rigid	It can be recasted on the basis of activity level to be achieved. Thus it is not rigid.
2	It operates on one level of activity and under one set of conditions	It consists of various budgets for different level of activity.
3	If the budgeted and actual activity levels differ significantly, then cost ascertainment and price fixation do not give a correct picture.	It facilitates the cost ascertainment and price fixation at different levels of activity.
4.	Comparisons of actual and budgeted targets are meaningless particularly when there is difference between two levels.	It provided meaningful basis of comparison of actual and budgeted targets.

(b) Scope of Cost Reduction: Cost reduction is attainable in almost all areas of business activities. There is perhaps no situation which cannot be improved. It covers a wide range like new layout, product design, production methods, materials and machines in factories as well as in offices, innovation in marketing, etc. It also extends to specified activities like purchasing, handling, packaging, shipping, warehousing, marketing, use of administrative facilities and even utilisation of financial resources.

Excessive cost may result in every organisation from:

(a) Lack of information about raw materials, processes, products, components etc.

(b) Lack of utilisation of ideas generated from performance and economic analysis.

(c) Honest but wrong beliefs that certain things are impossible for achievement.

(d) Temporary circumstances like features developed under pressure or modifications made to meet certain circumstances.

(e) Habits and attitudes of confining to one conventional method.

It is not necessary for management to proceed in any specific sequence in considering the various aspects of cost reduction and it may be

necessary to start the campaign in more than one direction at the same time.

(c) **Job Costing and Batch Costing :** According to Job Costing, costs are collected and accumulated according to jobs. Each job or unit of production is treated as a separate entity for the purpose of costing. Job Costing may be employed when jobs are executed for different customers according to their specifications.

Batch Costing is a form of Job Costing, a lot of similar units which comprises the batch may be used as a cost unit for ascertaining job. Such a method of costing is used in case of pharmaceutical industry readymade garments industries, manufacturing parts of TV, radio sets etc.

OR

(d) ***Time and motions study:*** It is the study of time taken and motions (movements) performed by workers while performing their jobs at the place of their work. Time and motion study has played a significant role in controlling and reducing labour cost.

Time Study is concerned with the determination of standard time required by a person of average ability to perform a job. Motion study, on the other hand, is concerned with determining the proper method of performing a job so that there are no wasteful movements, hiring the worker unnecessarily. However, both the studies are conducted simultaneously. Since materials, tools, equipment and general arrangement of work, all have vital bearing on the method and time required for its completion. Therefore, their study would be incomplete and would not yield its full benefit without a proper consideration of these factors.

Time and motion study is important to management because of the following features:

1. Improved methods, layout, and design of work ensure effective use of men, material and resources.

2. Unnecessary and wasteful methods are pin-pointed with a view to either improving them or eliminating them altogether. This leads to reduction in the work content of an operation, economy in human efforts and reduction of fatigue.

3. Highest possible level of efficiency is achieved in all respect.

4. Provides information for setting labour standards - a step towards labour cost control and cost reduction.

5. Useful for fixing wage rates and introducing effective incentive scheme.