Paper 8- Cost Accounting

Answer to MTP_Intermediate_Syl2016_June2018_Set 2

Cost Accounting

Full Marks: 100 **Time allowed: 3 hours**

Section- A

Answer the following questions:

(i) Depreciation is a example of-
- **(a) Fixed Cost**
- **(b) Variable Cost**
- **(c) Semi Variable Cost**
- **(d) None**

(ii) Continuous stock taking is a part of-
- **(a) ABC analysis**
- **(b) Annual stock taking**
- **(c) Perpetual Inventory**
- **(d) None of these**

(iii) Cost of idle time arising due to non availability of raw material is
- **(a) Charged to costing profit and loss A/c**
- **(b) Charged to factory overheads**
- **(c) Recovered by inflating the wage rate**
- **(d) Ignored**

(iv) Which of the following items is not included in preparation of cost sheet?
- **(a) Carriage inward**
- **(b) Purchase returns**
- **(c) Sales Commission**
- **(d) Interest paid**

(v) The allotment of whole items of cost of centres or cost unit is called
- **(a) Cost allocation**
- **(b) Cost apportionment**
- **(c) Overhead absorption**
- **(d) None of the above**

(vi) P/V Ratio will increase if the
- **(a) There is a decrease in fixed cost**
- **(b) There is an increase in fixed cost**
- **(c) There is a decrease in selling price per unit**
- **(d) There is a decrease in variable cost per unit.**

(vii) Job costing is used in

(a) Furniture making
(b) Repair shops
(c) Printing press
(d) All of the above

(viii) In a process 8000 units are introduced during a period. 5% of input is normal loss. Closing work in progress 60% complete is 1000 units. 6600 completed units are transferred to next process. Equivalent production for the period is:

(a) 9000 units
(b) 7440 units
(c) 5400 units
(d) 7200 units

(ix) Difference between standard cost and actual cost is called as

(a) Wastage
(b) Loss
(c) Variance
(d) Profit

(x) Standard cost of material for a given quantity of output is ₹15,000 while the actual cost of material used is ₹16,200. The material cost variance is:

(a) ₹ 1,200 (A)
(b) ₹ 16,200 (A)
(c) ₹ 15,000 (F)
(d) ₹ 1,200 (F)

(b) Match the statement in Column I with the most appropriate statement in Column II: **[1×5 =5]**

Column I		Column II	
(i)	Prime Cost	(A)	CAS 19
(ii)	Angle of incidence	(B)	Passenger/ Kilometer
(iii)	Operating Costing	(C)	Direct Cost
(iv)	Joint Cost	(D)	Constant
(v)	Variable cost per unit	(E)	Profitability Rate

(c) State whether the following statements are 'True' or 'False': **[1x5=5]**

(i) Variances are calculated for both material and labour.

(ii) The allocation of joint cost on by-products affects the total profit or loss.

(iii) Closing stock of finished goods should be valued on the basis of cost of sales.

(iv) For decision making, absorption costing is more suitable than marginal costing.

(v) Overhead and conversion cost are inter-changeable terms.

(d) Fill in the blanks suitably: **[1x5=5]**

(i) Variable cost per unit is _____

(ii) Profit ÷ P/v Ratio = _____

(ii) Budget is a quantitative and / or a _____statement.

(iii) Fixed cost per unit _____varies with the no. of units.

(iv) An activity level of 1000 hours cost is ₹10,000 and an activity level for 2000 hours the total cost is ₹16,000. The cost at 3000 hours of level of activity is _____

(v) Contribution earned on Break-even sales equals to _____of the firm.

Answer:

1. (a)

i.(a), ii.(c) iii.(a), iv.(d), v.(a), vi.(d), vii.(d), viii.(d), ix.(c), x.(a).

1.(b)

i.(C), ii.(E), iii.(B), iv.(A), v.(D).

1.(c)

i.(True), ii.(False), iii.(False), iv.(False), v.(False).

1.(d)

(i)Fixed, (ii) Margin of Safety, (iii) *financial, (iv)* ₹22,000*,(v)* Fixed Cost

Section B

Answers any *five Questions,* working Notes should form part of the answer.

(a) From the following particulars furnished by SPRT Ltd prepares a statement indicating the pricing of issues on the basis of Simple Average Method.

2017, April

March 1 - Purchased 200 units @₹20 each.
March 2 - Purchased 100 units @₹18 each.
March 5 - Issued 250 units to job P vide M/R No. 10
March 7 - Purchased 200 units @₹ 16 each
March 10 - Purchased 300 units @₹ 14 each.
March 13 - Issued 200 units to job Q vide M/R No. 16
March 18 - Issued 200 units to job R vide M/R No. 18
March 20 - Purchased 100 units @₹ 13 each
March 24 - Issued 150 units to job X vide M/R No. 20.

[9]

(b) A company manufactures a special product which requires a component 'X'. The following particulars are collected for the year 2017.

1.	**Annual demand of 'X'**	**8,000 units**
2.	**Cost of placing an order**	**₹ 200 per order**
3.	**Cost per unit of 'X'**	**₹ 400**
4.	**Carrying cost % p.a.**	**20%**

The company has been offered a quantity discount of 4% on the purchase of 'X' provided the order size is 4,000 components at a time.

Required:

(i) Compute the economic order quantity.

(ii) Advise whether the quantity discount offer can be accepted. **[6]**

Answer (a)

STORES LEDGER ACCOUNT

Receipts				Issue			Balance	
Date	**Qty.**	**Price (₹)**	**Value (₹)**	**Qty.**	**Price (₹)**	**Value (₹)**	**Qty.**	**Value (₹)**
2017								
March - 1	200	20	4,000	-	-	-	200	4,000
March - 2	100	18	1,800	-	-	-	300	5,800
March - 5	-	-	-	250	19	4,750	50	1,050
March - 7	200	16	3,200	-	-	-	250	4,250
March-10	300	14	4,200	-	-	-	550	8,450
March-13	-	-	-	200	16	3,200	350	5,250
March-18	-	-	-	200	15	3,000	150	2,250
March- 20	100	13	1,300	-	-	-	250	3,550
March- 24	-	-	-	150	13.5	2025	100	1,525

Working Notes:

1. Calculation of price for issue on 5th March, 2017
   = (20 + 18)/2 = 19
2. Price for issue on 13th March
   (18 + 16 + 14)/3 = 16
3. Price for issue on 18th March
   (16 + 14)/2 = 15
4. Price for issue on 24th March
   (14 + 13)/2 = 13.5

Answer (b)

(i) Calculation of Economic Order Quantity

$$EOQ = \sqrt{\frac{2AO}{C}}$$

$$EOQ = \sqrt{\frac{2 \times 8,000\,(units) \times ₹200}{₹400 \times 20\%}}$$

= 200 units

(ii) Evaluation of Profitability of Different Options of Order Quantity

(a) When EOQ is ordered

		Amount (₹)
Purchase Cost	(8,000 units x ₹ 400)	32,00,000
Ordering Cost	[(8,000 units / 200 units) x ₹ 200]	8,000
Carrying Cost	(200 units x ₹ 400 x ½ x 20/100	8,000
Total Cost		32,16,000

(b) When quantity discount is accepted

Purchase Cost	(8,000 units x ₹ 384)	30,72,000
Ordering Cost	[(8,000 units / 4000 units) x ₹ 200]	400
Carrying Cost	(4000 units x ₹ 384 x ½ x 20/100	1,53,600
Total Cost		32,26,000

Advise:

The total cost of inventory is lower if EOQ is adopted. Hence, the company is advised not to accept the quantity discount.

3. (a) A work measurement study was carried out in a firm for 10 hours and the following information was generated.

Units produced : 400
Idle time : 12%
Performance rating : 125%
Allowance time : 10% of standard time.
What is the standard time for task? [7]

(b) For a department the standard overhead rate is ₹2.5 per hour and the overhead allowances are as follows:

Activity Level (Hours)	Budget overhead Allowance (₹)
3,000	10,000
7,000	18,000
11,000	26,000

Calculate:
i) Fixed cost
ii) The standard activity level on the basis of which the standard overhead rate has been worked out.

[8]

Answer (a)

Calculation of standard time for task

Total time = 10 x 60 = 600 minutes
(-) Down time or Idle time @ 12% = 72 minutes
Actual time = 528 minutes
Normal Time = 528 x 125% = 660 minutes
(+) Relaxation allowance
(10% or 1/10 on standard time
i.e. 1/9 on normal time) = 73.33 minutes
Standard time for job = 733.33 minutes
Standard time for each unit = 733.33/400 = 1.833 minutes

Answer (b)

(i) Fixed Cost

Variable OH per hour = $\frac{\text{High level cost – Low level cost.}}{\text{High level hours – Low level hours}}$
= [(26,000-10,000) / (11,000-3,000)]
= ₹ 2 per hour
Fixed Cost = 10,000 – (3,000 x 2) = ₹ 4,000

(ii) Standard activity level at which the rate has been determined

Standard activity level at which the rate has been determined
= Fixed Cost / Fixed OH per hour
= 4,000 / (2.5 – 2) = 8,000 hours

4. (a) The following balances are shown in the Cost Ledger of Spark Ltd. as on 1st October, 2017:

Particulars	Dr. (₹)	Cr.(₹)
Work in progress Account	7,056	
Factory overheads suspense Account	360	
Finished stock Account	5,274	
Stores Ledger Control Account	9,450	
Administration Overheads Suspense A/C	180	
General Ledger Adjustment Account		22,320

Transactions for the year ended 30th September, 2017

Particulars	₹
Stores issued to production	45,370
Stores purchased	52,400
Material purchased for direct issued to production	1,135
Wages paid (including indirect labour ₹ 2,520)	57,600
Finished goods sold	1,18,800
Administration expenses	5,400
Selling expenses	6,000
Factory overheads	15,600
Store issued for Capital work-in-Progress	1,500
Finished goods transferred to warehouse	1,08,000
Store issued for factory repairs	2,000
Factory overheads recovered to production	16,830

Administration overheads charged to production	**4,580**
Factory overheads applicable unfinished work	**3,080**
selling overheads allocated to sales	**5,500**
Stores lost due to fire in store (not insured)	**150**
Administration expenses on unfinished work	**850**
Finished goods stock on 30.9.2017	**14,274**

You are required to record the entries in the cost ledger for the year ended 30th September, 2017 and prepare a Trial Balance as on that date. [12]

(b) A customer has been ordering 60,000 special design metal columns at the columns at the rate of 18,000 per order during the past years. The production cost comprises ₹120 for material, ₹ 60 for labour and ₹ 20 for fixed overheads. It costs ₹ 1500 to set up for one run of 18,000 column and inventory carrying cost is 15% since this customer may buy at least 5000 columns this year, the company would like to avoid making five different production runs. Find the most economic production run.

[3]

Answer (a)

Dr. Work-in-Progress Control Account Cr.

Particulars	Amt. ₹	Particulars		Amt. ₹
To, Balance b/d	7,056	By, Finished Goods Control A/c		1,08,000
To, Material Control A/c	45,370	By, Balance c/d		
To, General Ledger Adjustment A/c	1,135	Factory Overhead	3,080	
To, Wages control A/c	55,080	Admn. O.H.	850	
To, Factory overhead control A/c	16,830	Material & Wages	22,051	25,981
To, Administrative Overhead Control A/c	4,580			
To, Factory Overhead Control A/c	3,080			
To, Administrative Overhead Control A/c	850			
	1,33,981			**1,33,981**
To Balance b/d	25,981			

Dr. Factory Overhead Suspense Account Cr.

Particulars	₹	Particulars	₹
To, Balance b/d	360	By, Work-in-Progress Control A/c	3,080
To, Wages Control A/c	2,520	By, Work-in-Progress Control A/c	16,830
To, General Ledger Adjustment A/c	15,600	By, Balance c/d	570
To, Material Control A/c	2,000		
	20,480		**20,480**
To, Balance b/d	570		

Dr. Finished Goods Control Account Cr.

Particulars	₹	Particulars	₹
To, Balance b/d	5,274	By, Cost of Sales A/c	99,000
To, Work-in-progress Control A/c	1,08,000	By, Balance c/d	14,274
	1,13,274		**1,13,274**
To, Balance b/d	14,274		

Dr. Material Control Account Cr.

Particulars	₹	Particulars	₹
To, Balance b/d	9,450	By, Work-in-Progress Control A/c	45,370
To, General Ledger Adjustment A/c	52,400	By, Capital Work-in-Progress Control A/c	1,500
		By, Factory Overhead Suspense A/c	2,000
		By, Costing Profit & Loss A/c	150
		By, Balance c/d	12,830
	61,850		**61,850**
To, Balance b/d	12,830		

Dr. Administrative Overhead Control Account Cr.

Particulars	₹	Particulars	₹
To, Balance c/d	180	By, Work-in-Progress Control A/c	4,580
To, General Ledger Adjustment A/c	5,400	By, Work-in-Progress Control A/c	850
		By, Balance c/d	150
	5,580		**5,580**
To, balance b/d	150		

General Ledger Adjustment (GLA) Account

Dr. **(or) Cost Ledger Control (CLC) Account** **Cr.**

Particulars	₹	Particulars	₹
To, Costing Profit & Loss A/c	1,18,800	By, Balance b/d	22,320
To, Balance c/d	55,805	By, Material Control A/c	52,400
		By, Work-in-Progress Control A/c	1,135
		By, Wages Control A/c	57,600
		By, Administrative Overhead Control A/c	5,400
		By, Factory Overhead Control A/c	15,600
		By, Selling and Distribution Overhead Control A/c	6,000
		By, Costing Profit & Loss A/c	14,150
	1,74,605		**1,74,605**
		By Balance b/d	55,805

Dr. Wages Control Account Cr.

Particulars	₹	Particulars	₹
To, General Ledger Adjustment A/c	57,600	By, Work-in-Progress Control A/c	55,080
		By, Factory Overhead Control A/c	2,520
	57,600		**57,600**

Dr. Costing Profit & Loss Account Cr.

Particulars	₹	Particulars	₹
To, Material Control A/c	150	By, General Ledger Adjustment Control A/c (Sales)	1,18,800
To, Cost of Sales	1,04,500		
To, General Ledger Adjustment Control A/c (profit)	14,150		
	1,18,800		**1,18,800**

Dr. Selling and Distribution Overhead Control Account Cr.

Particulars	₹	Particulars	₹
To, General Ledger Adjustment A/c	6,000	By, Cost of Sales A/c	5,500
		By, Balance c/d	500
	6,000		**6,000**
To Balance b/d	500		

Dr. Capital Work-in-progress Account Cr.

Particulars	₹	Particulars	₹
To, Material Control A/c	1,500	By, Balance c/d	1,500
	1,500		**1,500**
To, balance b/d	1,500		

Dr. Cost of Sales Account Cr.

Particulars	₹	Particulars	₹
To, Selling & Distribution Control A/c	5,500	By, Costing Profit & Loss A/c	1,04,500
To, Finished Goods Control A/c	99,000		
	1,04,500		**1,04,500**

Trial Balance

Particulars	**Debit ₹**	**Credit ₹**
Work-in-Progress Control	25,981	
Factory overhead Suspense	570	
Finished Goods Control	14,274	
Material Control	12,830	
Administrative Overhead Control	150	
General Ledger Adjustment		55,805
Selling and Distribution Overhead Control	500	
Capital Work-in-Progress	1,500	
	55,805	**55,805**

Answer (b):

Economic Production Run

$$= \sqrt{\frac{2 \times \text{Annual Output} \times \text{Setup Cost Per Production Run}}{\text{Inventory Carrying Cost per unit P.A.}}}$$

$$= \sqrt{\frac{2 \times 60,000 \times 1,500}{15\% \text{ of } (120 + 60 + 20)}}$$

= 2,450 units

5 (a) A contractor commenced the work on a particular contract on 1st April, 2017 he usually closes his books of accounts for the year on 31st December of each year. The following information is revealed from his costing records on 31st December, 2017.

	₹
Materials sent to site	**43,000**
Jr. Engineer	**12,620**
Labour	**1,00,220**

A machine costing ₹30,000 remained in use on site for 1/5th of year. Its working life was estimated at 5 years and scrap value at ₹2,000

A supervisor is paid ₹2,000 per month and had devoted one half of his time on the contract.

All other expenses were ₹14,000 the materials on site were ₹2,500.

The contract price was ₹4,00,000. On 31st December, 2017 2/3rd of the contract was completed however, the architect gave certificate only for ₹2,00,000. On which 80% was paid. Prepare Contract Account. [6]

(b)'Him lodging' home is being run in a small hill station with 50 single rooms. The home offers concessional rates during six off- season months in a year. During this period, half of the full room rent is charged. The management's profit margin is targeted at 20% of the room rent. The following are the cost estimates and other details for the year ending on 31st March 2017. [Assume a month to be of 30 days].

(i) Occupancy during the season is 80% while in the off- season it is 40% only.

(ii) Expenses:

- **Staff salary [Excluding room attendants] ₹ 3,55,000**
- **Repairs to building ₹ 1,30,500**
- **Laundry and linen ₹ 45,000**
- **Interior and tapestry ₹ 1,05,500**
- **Sundry expenses ₹ 95,400**

(iii) Annual depreciation is to be provided for buildings @ 5% and on furniture and equipments @ 15% on straight-line basis.

(iv) Room attendants are paid ₹ 5 per room day on the basis of occupancy of the rooms in a month.

(v) Monthly lighting charges are ₹ 120 per room, except in four months in winter when it is ₹ 30 per room and this cost is on the basis of full occupancy for a month.

(vi) Total investment in the home is ₹ 100 lakhs of which ₹ 80 lakhs relate to buildings and balance for furniture and equipments.

You are required to work out the room rent chargeable per day both during the season and the off-season months on the basis of the foregoing information. [9]

Answer (a):

Contract Account

Dr. **Cr.**

Particulars	Amount ₹	Particulars		Amount ₹
To, Material A/c	43,000	By, W.I.P A/c		
To, Jr. Engineer A/c	12,620	Work certified	2,00,000	2,44,365
To, Labour A/c	1,00,220	Work uncertified	*44,365	
To, Dep. On plant A/c	1,120	By, Material at site		2,500
[(30,000-2,000)/5] x 1/5				
To, Supervisor (2,000 x 9 x 1/2)	9,000			
To, Other expenses A/c	14,000			
To, P & L A/c	35,683			
To, Reserve c/d	31,222			
	2,46,865			2,46,865

Working notes:

Work uncertified:

For 2/3rd - ₹1,77,460

For 1/6th - ? (2/3 – 1/2 = 1/6)

* [(1,77,460 ÷ 2/3) x 1/6] = ₹44,365

Answer (b):

(i) **Computation of Estimated Cost for the year ending 31st March, 2017**

Particulars	Amount (₹)
Salary	3,55,000
Repairs	1,30,500
Laundry and linen	45,000
Interior decoration	1,05,500
Depreciation: 5% on ₹ 80 lakhs: ₹ 4,00,000 15% on ₹ 20 lakhs: ₹ 3,00,00	7,00,000
Sundry expenses	95,400
Total costs	14,31,400

(ii) Number of room days in a year:

Occupancy during season for 6 months @ 80% (50 x0.80 x 6 x 30) = 7,200

Off-season occupancy for 6 months @ 40% (50 x 0.40 x 6 x 30) = 3,600

Total number of room days during a year = 10,800

(iii) Attendant's salary

For 10,800 room days @ ₹ 5 per day = ₹ 54,000

(iv) Light charges for 8 months @ ₹ 120 per month i.e. ₹ 120/30 = ₹ 4 per room day.

Light charges for 4 months @ ₹ 30 per month, i.e. ₹ 30/30 = ₹ 1 per room day

Total lighting charges:

During season @ ₹ 4 for 7200 days	= ₹ 28,800
During off season 2 months @ ₹ 4 for 1200 days (2/6 x 3600)	= ₹ 4,800
During 4 months of winter @ Re. 1 for 2,400 days (4/6 x 3600)	= ₹ 2,400
	₹ 36,000

Note:

It is given in the example that during four months of winter, the lighting is ₹ 30 per room, which is 1/4th of the lighting charges during the remaining period of the year. Hence the rate of room day which is ₹ 4 will also be 1/4th for winter period and so it is taken as Re. 1 per room day.

Statement of Total Estimated Cost

Particulars	Amount (₹)
Expenses as shown in (i) above	14,31,400
Attendant's salary as shown in (iii)above	54,000
Lighting charges as shown in (iv) above	36,000
Total cost	15,21,400

Computation of total Full Room Days

During season: 7,200

Off-season: 1,800 (Equivalent to 50% rate of 3,600 days)

Total Full Room Days: 9,000

Computation of Room Rent

Cost per room day : ₹ 15,21,400 / 9,000	= ₹ 169.04
Add: Profit margin at 20% of rent or 25% of cost	= ₹ 42.26
Room Rent	= ₹ 211.30

Therefore, during season, room rent of ₹ 211.30 is to be charged while in the off-season room rent of ₹ 105.65 is to be charged.

6. (a) The sales turnover and profit during two periods were as follows: **[7]**

Period	Sales (₹)	Profit (₹)
1	3,50,000	20,000
2	4,50,000	40,000

What would be probable trading results with sales of ₹2,80,000? What amount of sales will yield a profit of ₹1,00,000?

(b) Mr. Tom has ₹2,00,000 investment in a business. He wants a 15% profit on his money. From an analysis of recent cost figures he finds that his variable cost of operating is 60% of sales; his fixed costs are ₹80,000 per year. Show supporting computations for each answer.

(i) What sales volume must be obtained to break-even?

(ii) What sales volume must be obtained to his 15% return on investment?

(iii) Mr. Young estimates that even if he closed the doors of his business he would incur ₹28,000 expenses per year. At what sales would be better off by locking his sales up?

[8]

Answer (a)

P/V ratio = (Change in profit / Change in sales) x 100
= (20,000 / 1,00,000) x 100 = 20%
Fixed cost = (Sales x P/V ratio) – Profit
= (3,50,000 x 0.2) – 20,000 = ₹ 50,000
Sales required to earn desired profit = $\frac{\text{Fixed cost + desired profit}}{\text{P/V ratio}}$
= (50,000 + 1,00,000) / 20% = ₹ 7,50,000

Answer (b)

P/V ratio (V. cost ratio 60%) = 40%

(i) Break even sales = 80,000 / 40% = ₹ 2,00,000

(ii) Required sales to get desired income = (80,000 + 30,000) / 40% = ₹ 2,75,000

(iii) Shut down sales = $\frac{\text{Fixed cost – shut down cost}}{\text{P/V Ratio}}$
= (80,000 – 28,000) / 40%
= ₹ 1,30,000

7 (a) A company manufactures scooters and sells it at ₹6,000 each. An increase of 17% in cost of materials and of 20% of labour cost is anticipated. The increased cost in relation to the present sales price would cause at 25% decrease in the amount of the present gross profit per unit.

At present, material cost is 50%, wages 20% and overhead is 30% of cost of sales.

You are required to:

(i) Prepare a statement of profit and loss per unit at present and;
(ii) Compute the new selling price to produce the same percentage of profit to cost of sales as before. [7]

(b) The standard labour complement and the actual labour complement engaged in a week for a job are as under:

Skilled workers	Semi-skilled workers		Unskilled workers
a) Standard no. of workers in the gang	32	12	6
b) Standard wage rate per hour (₹)	3	2	1
c) Actual no. of workers employed in the gang during the week	28	18	4
d) Actual wage rate per hour (₹)	4	3	2

During the 40 hour working week the gang produced 1,800 standard labour hours of work. Calculate
1) Labour Efficiency Variance
2) Mix Variance
3) Rate of Wages Variance
4) Labour Cost Variance [8]

Answer (a):

Let X and Y be the cost and profit respectively.

X + Y = 6,000 → (1)

Material = X x 50/100 = 0.5X

Labour = X x 20/100 = 0.2X

Overheads = X x 30/100 = 0.3X

After increase of cost:

Material = 0.5 X x 117/100 = 0.585 X

Labour = 0.2X x 120/100 = 0.240 X

Overheads = 0.300 X

= 1.125 X

Profit = Y x 75/100 = 0.75Y

∴ New Equation 1.125X + 0.75Y = 6,000 → (2)

Multiplying Eq. (1) by 0.75 → 0.75X + 0.75Y = 4,500

0.375X = 1,500

X = 1,500/0.375 = ₹ 4,000

X+Y=6,000, Y = 6,000 – 4,000 = ₹ 2,000

Statement of cost & profit per unit at present:

	₹
Material = 4000 x 50%	= 2,000
Labour = 4,000 x 20%	= 800
Overheads = 4,000 x 30%	= 1,200
	= 4,000
(+) profit @ 50% of cost	= 2,000
	= 6,000

Computation of new selling price to get same percentage of profit:

	₹
Material = 2,000 x 117/100	=2,340
Labour = 800 x 120/100	= 960
Overheads	=1200
Cost	=4,500
(+) Profit @ 50% of cost	= 2,250
New selling price	=6,750

Answer (b):

Analysis of Given Data

	Standard Data			Actual Data		
	Hours	Rate (₹)	Value (₹)	Hours	Rate (₹)	Value (₹)
Skilled	32 × 40 = 1,280	3	3,840	28 × 40 = 1,120	4	4,480
Semi skilled	12 × 40 = 480	2	960	8 × 40 = 720	3	2,160
Unskilled	6 × 40 = 240	1	240	4 × 40 = 160	2	320
	2,000		5,040	2,000		6,960

Computation of Required Values

	SRSH (1) (₹)	SRRSH (2) (₹)	SRAH (3) (₹)	ARAH (4) (₹)
Men	3 x 1,152 = 3,456	3,840	3 x 1,120 = 3,360	4,480
Women	2 x 432 = 864	960	2 x 720 = 1,440	2,160
Boys	1 x 216 = 216	240	1 x 160 = 160	320
	4,536	5040	4,960	6,960

Computation of SH

$$SH = \left(\frac{\text{SH for that worker}}{\text{SH for all the worker}}\right) \text{x AQ for that worker}$$

$$\text{For Skilled worker} = \left(\frac{1,280}{2,000}\right) \times 1,800 = 1,152$$

$$\text{For Semiskilled worker} = \left(\frac{480}{2,000}\right) \times 1,800 = 432$$

$$\text{For Unskilled worker} = \left(\frac{240}{2,000}\right) \times 1,800 = 216$$

Where (1) SRSH = Standard Cost of Standard Labour = ₹ 4,536
(2) SRRSH = Revised Standard Cost of Labour = ₹ 5,040
(3) SRAH = Standard Cost of Actual Labour = ₹ 4,960
(4) ARAH = Actual Cost of Labour = ₹ 6,960

Computation of Labour Variances:

a. Labour Sub-Efficiency Variance = (1) – (2) = ₹ 504 (A) [₹(4,536 – 5,040)]
b. Labour Mix or Gang Variance = (2) – (3) = ₹80 (F) [₹(5,040 – 4,960)]
c. Labour Efficiency Variance = (1) – (3) = ₹424 (A) [₹(4,536 – 4,960)]
d. Labour Rate Variance = (3) – (4) = ₹2,000 (A) [₹(4,960 – 6,960)]
e. Labour Cost Variance = (1) – (4) = ₹2,424 (A) [₹(4,536 – 6,960)]

8. Write short notes on any three of the following: [5x3=15]

(a) Cost Centre
(b) Limitations of cost accounting System
(c) Cost Accounting Standard on Packing Material Cost
(d) Standard costing Vs Budgetary Control

Answer (a)

Cost Centre:

CIMA defines a cost centre as "a location, a person, or an item of equipment (or a group of them) in or connected with an undertaking, in relation to which costs ascertained and used for the purpose of cost control". The determination of suitable cost centres as well as analysis of cost under cost centres is very helpful for periodical comparison and control of cost. In order to obtain the cost of product or service, expenses should be suitably segregated to cost centre. The manager of a cost centre is held responsible for control of cost of his cost centre. The selection of suitable cost centres or cost units for which costs are to be ascertained in an undertaking depends upon a number of factors such as organization of a factory, condition of incidence of cost, availability of information, requirements of costing and management policy regarding selecting a method from various choices. Cost centre may be production cost centres operating cost centres or process cost centres depending upon the situation and classification.

In a manufacturing concern, the cost centres generally follow the pattern or layout of the departments or sections of the factory and accordingly, there are two main types of cost centres as below:-

(i) **Production Cost Centre:** These centres are engaged in production work i.e engaged in converting the raw material into finished product, for example Machine shop, welding shops...etc

(ii) **Service Cost Centre:** These centres are ancillary to and render service to production cost centres, for example Plant Maintenance, Administration...etc

The number of cost centres and the size of each vary from one undertaking to another and are dependent upon the expenditure involved and the requirements of the management for the purpose of control.

(b) Limitations of cost accounting System

Like any other system of accounting, Cost Accountancy is not an exact science but an art which has developed through theories and accounting practices based on reasoning and commonsense. Many of the theories cannot be proved nor can they be disproved. They grownup in course of time to become conventions and accepted principles of Cost Accounting. These principles are by no means static, they are changing from day to day and what is correct today may not hold true in the circumstances tomorrow.

Large number of Conventions, Estimates and Flexible factors: No cost can be said to be exact as they incorporate a large number of conventions, estimations and flexible factors such as:-

(i) Classification of costs into its elements.

(ii) Materials issue pricing based on average or standard costs.

(iii) Apportionment of overhead expenses and their allocation to cost units/centres.

(iv) Arbitrary allocation of joint costs.

(v) Division of overheads into fixed and variable.

Cost Accounting lacks the uniform procedures and formats in preparing the cost information of a product/ service. Keeping in view this limitation, all Cost Accounting results can be taken as mere estimates.

(c) Cost Accounting Standard on Packing Material Cost

This standard deals with the principles and methods of determining the Packing Material Cost. This standard deals with the principles and methods of classification, measurement and assignment of Packing Material Cost, for determination of the cost of product, and the presentation and disclosure in Cost Statements. Packing Materials for the purpose of this standard are classified into primary and secondary packing materials.

The objective of this standard is to bring uniformity and consistency in the principles and methods of determining the packing material cost with reasonable accuracy.

This standard should be applied to cost statements, which require classification, measurement, assignment, presentation and disclosure of Packing Material Cost including those requiring attestation.

(d) Standard costing Vs Budgetary Control

Despite the similarity in the basic principles of Standard Costing and Budgetary Control, the two systems vary in scope and in the matter of detailed techniques. The difference may be summarized as follows:

1. A system of Budgetary Control may be operated even if no Standard Costing system is in use in the concern.
2. While standard is an unit concept, budget is a total concept.
3. Budgets are the ceilings or limits of expenses above which the actual expenditure should not normally rise; if it does, the planned profits will be reduced. Standards are minimum targets to be attained by actual performance at specified efficiency.
4. Budgets are complete in as much as they are framed for all the activities and functions of a concern such as production, purchase, selling and distribution, research and development, capital utilisation, etc. Standard Costing relates mainly to the function of production and the related manufacturing costs.
5. A more searching analysis of the variances from standards is necessary than in the case of variations from the budget.
6. Budgets are indices, adherence to which keeps a business out of difficulties. Standards are pointers to further possible improvements.