

## FINAL EXAMINATION

### GROUP IV

(SYLLABUS 2008)

## SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2013

Paper- 15: MANAGEMENT ACCOUNTING - ENTERPRISE PERFORMANCE MANAGEMENT

Time Allowed: 3 Hours

Full Marks: 100

The figures in the margin on the right side indicate full marks.  
Attempt Question No. 1 (carrying 25 marks), which is compulsory and  
any five more questions (each carrying 15 marks) from the rest.

Please (i) Answer all part of a question at one place only.  
(ii) Open a new page for answer to a new question.

1.

(a) State whether the following statements given below are 'True' or 'False'. If True, simply rewrite the given statement (= 1 mark). If False, state it as False (= 1/2 marks) and rewrite the correct statement (=1/2 mark):

- (i) Shared belief does not ensure greater commitment of the employee to the organization.
- (ii) Break Even Chart is dynamic.
- (iii) Quality Circle is a group of employees who formally meet together.
- (iv) Variable Cost is also known as Indirect Cost.
- (v) Balanced Score card is a new approach to Strategic Management and was developed by Joseph Maciariello and Calvin Kirby. 1x5=5

(b) Match Column I with Column II:

Column I		Column II	
(i)	A Chase Strategy	A.	is price led
(ii)	Value Analysis	B.	most significant development in Business Management
(iii)	Life Cycle Costing	C.	Critical part in HR Plg. process
(iv)	Supply Chain's emergence	D.	Process of analyzing empirical data
(v)	Decision Tree	E.	Vogel's Approximation Method
(vi)	Succession Planning	F.	Technique of last resort
(vii)	Transportation Model	G.	implies matching demand and capacity period by period
(viii)	Target Costing	H.	Rolling-Back Technique
(ix)	Simulation Model	I.	assists mgmt. in decision-making
(x)	Data Mining	J.	Cost Reduction

(c) Define the following terms in one/two sentences:

- (i) Cybernetics

1/2x10=5

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- (ii) Seiso
- (iii) Sensitivity Analysis
- (iv) Six Sigma
- (v) Generic Benchmarking 1x5=5

(d) Expand the following abbreviations:

- (i) CPOF
- (ii) EMS
- (iii) CER
- (iv) FMECA
- (v) FAST 1x5=5

(e) Fill in the blanks with the most appropriate words out of the options indicated in the bracket against each statement:

- (i) Management Control System (MCS) is a set of \_\_\_\_\_ (inter/intra) related communication.
- (ii) The idea behind Lean/JIT is a concept called \_\_\_\_\_ (idle/ideal) production.
- (iii) The Master Production Schedule is divided into units of time called \_\_\_\_\_ (Drums/Buckets).
- (iv) A Customer FAST diagram is usually applied to \_\_\_\_\_ (average/total) product.
- (v) Business Process Perspective refers to \_\_\_\_\_ (internal/external) business processes. 1x5=5

Answer:

(a)

- (i) **False.** Shared belief ensures greater commitment of the employee to the organization
- (ii) **False.** Break Even Chart is Static.
- (iii) **False.** Quality Circle is a group of employees, who voluntarily and informally meet together.
- (iv) **False.** Variable Cost is also known as Direct Cost.
- (v) **False.** Balanced Scorecard is a new approach to Strategic Management and was developed by Robert Kaplan and David Norton.

(b)

	Column-1		Column-II
(i)	A Chase Strategy	G	implies matching demand & capacity period by period.
(ii)	Value Analysis	J	Cost Reduction
(iii)	Life Cycle Costing	I	assists mgmt. in decision making.
(iv)	Supply Chain's emergence	B	Most significant development in Business Management.
(v)	Decision Tree	H	Rolling -Back Technique.
(vi)	Succession Planning	C	critical part of HR Plg., process
(vii)	Transportation Model	E	Vogel's Approximation Method.
(viii)	Target Costing	A	is price-led
(ix)	Simulation Model	F	Technique of last resort
(x)	Data Mining	D	Process of analyzing empirical data

(c)

- (i) **Cybernetics:** is a term derived from the Greek letter "Kybernetes" which means 'Steersman'. A Steersman is a person, who directs a ship and corrects deviations from planned course of action, as they occur.
- (ii) **Seiso:** means 'clean-up'. It means undertaking up the job of cleaning. Such cleaning is not restricted merely to the machines, table, kitchen, cabinet, etc., It should be extended to the entire surroundings.

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- (iii) **Sensitivity Analysis:** is to ascertain the impact on final profitability by taking specific changes in each critical factor. Thus, if the company is to operate in a highly competitive market, with many rivals, sales volume and price will be critically important.
- (iv) **Six Sigma** is a set of practices to systematically improve processes by eliminating defects.
- (v) **Generic Benchmarking:** is an application of functional benchmarking that compares a particular business function at two or more organizations, selected without regard to their industry.

(d)

- (i) CPOF: Capacity Planning using Overall Factors.
- (ii) EMS: Environmental Management System.
- (iii) CER: Cost Estimating Relationships
- (iv) FMECA: Failure Mode, Effects, Criticality Analysis
- (v) FAST: Functional Analysis System Techniques.

(e) **Fill in the blanks:**

- (i) Management Control System (MCS) is a set of inter related communication.
- (ii) The idea behind Lean/JIT is a concept called ideal production.
- (iii) The Master Production Schedule is divided into units of time called Buckets.
- (iv) A Customer FAST diagram is usually applied to total product.
- (v) Business Process Perspective refers to internal business processes.

2.

- (a) Kolkata City Corporation has decided to carry out road repairs on main four entries of the city. The Government has agreed to make a special grant of ₹ 53 Lakhs towards the cost with a condition that the repairs must be done at the lowest cost and quickest time. If conditions so warrant, Supplementary grant will also be considered favourably. The Corporation has floated tenders and 5 Contractors have sent in their bids. In order to expedite work, one road will be awarded to only one contractor.

Contractors/Road	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
C <sub>1</sub>	9	14	19	15
C <sub>2</sub>	7	17	20	19
C <sub>3</sub>	9	18	21	18
C <sub>4</sub>	10	12	18	19
C <sub>5</sub>	10	15	21	16

As a cost Accountant, You have to:

- (i) Find out the best way of assigning of repair work to the contractors with the costs.
- (ii) If it is necessary to seek supplementary grants, then what should be the amount sought?
- (iii) Which of the five Contractors will be unsuccessful in his bid? 3+2+2=7

- (b) A manufacturer of fountain pens selling in the market at ₹ 100 per dozen makes an average net profit of 20% on sales by producing 50,000 dozen per annum against a capacity of 75,000 dozens. His Cost Sheet for the year was as under:

	Cost per dozen (Rs.)
Direct Materials	36
Direct Wages	30
Works overheads (50% of this is variable)	10
Sales overhead (25% of this is variable)	4

During next year, he anticipates his fixed costs to increase by 6%, Cost of Direct Materials by 5% and labour (with whom an agreement had been concluded) by 10%. Market enquiries revealed that the selling price of the product and quantity will remain unchanged during the next year.

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An enquiry has been received for the supply of 10,000 dozens to a customer. What could be the lowest quotation, if the business wants to make a minimum profit of ₹ 8 lakhs during the next year? Give detailed workings. 8

Answer:

(a)

Contractor \ Road	D				
	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
C <sub>1</sub>	9	14	19	15	0
C <sub>2</sub>	7	17	20	19	0
C <sub>3</sub>	9	18	21	18	0
C <sub>4</sub>	10	12	18	19	0
C <sub>5</sub>	10	15	21	16	0

Column Reduction Reduced Matrix

	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
C <sub>1</sub>	2	2	1	0	X
C <sub>2</sub>	0	5	2	4	X
C <sub>3</sub>	2	6	3	3	0
C <sub>4</sub>	3	0	X	4	X
C <sub>5</sub>	3	3	3	1	X

	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
C <sub>1</sub>	2	2	1	0	
C <sub>2</sub>	0	5	2	4	
C <sub>3</sub>	1	5	2	2	0
C <sub>4</sub>	3	0	X	4	
C <sub>5</sub>	2	2	2	X	X

	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>
C <sub>1</sub>	1	1	0	X	
C <sub>2</sub>	0	5	2	5	2
C <sub>3</sub>	X	4	1	2	0
C <sub>4</sub>	3	0	X	5	2
C <sub>5</sub>	1	1	1	0	X

(i)

Allotment		
Road	Contractor	Cost
1	2	7
2	4	12
3	1	19
4	5	16
Total Cost =		54

(ii) Since is cost is ₹ 54 Lakh is against grant of 53 lakhs, there is a need of supplementary grant of ₹ 1 lakh.

(iii) Contractor C<sub>3</sub> in our solution has been assigned the dummy roads losses out in the bid.

(b)

(i) Profitability during the year 2011 (50,000 dozen):

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	Per dozen (₹)	Total (₹)
Sales	100	50,00,000
Variable Cost	72	36,00,000
Contribution	28	14,00,000
Less: Fixed Cost	8	4,00,000
Profit (20% of sales)	20	10,00,000

Profitability during the year 2012 (50,000 dozen):

	Per dozen (₹)	Total (₹)
Sales	100	50,00,000
Variable Cost (₹):		
Raw materials (36 x 1.05)	37.80	18,90,000
Direct wages (30 x 1.10)	33.00	16,50,000
Variable works overheads	5.00	2,50,000
Variable sales overheads	1.00	50,000
	76.80	38,40,000

Contribution	23.20	11,60,000
Less: Fixed overheads:		
Works Overhead (₹ 5 x 1.06)	5.30	
Sales overhead (₹ 3 x 1.06)	3.18	
	8.48	4,24,000
Profit (Contribution – Fixed cost)	14.72	7,36,000
Desired profit in 2012		₹ 8,00,000
Profit already earned		₹ 7,36,000
Additional profit desired (for 10,000 dozens)		64,000
Additional profit per dozen		₹ 6.40
Variable cost as above		₹ 76.80
Lowest quotation per dozen		₹ 83.20

3.

(a) What do you mean by 'Simulation'? 3

(b) Patients arriving at a village dispensary are treated by a doctor on a first-come-first-served basis. The inter-arrival time of the patients is known to be uniformly distributed between 0 and 80 minutes, while their service time is known to be uniformly distributed between 15 and 40 minutes.

It is desired to simulate the system and determine the average time a patient has to be in the queue for getting service and the proportion of time the doctor would be idle.

Carry out the simulation using the following sequences of random numbers. The numbers have been selected between 00 and 80 to estimate inter-arrival times and between 15 and 40 to estimate the service times required by the patients.

Series 1	07	21	12	80	08	03	32	65	43	74
Series 2	23	37	16	28	30	18	25	34	19	21

Assume Starting time as 8.00 A.M.

12

**Answer:**

(a) With the help of Linear Programming model, we can easily solve problems of Transportation and Assignment models. However, all the business situations cannot be solved with the LPP model. That is, when all other techniques fail, we resort to the last resort, known as "Simulation". That is why; we call Simulation as the technique of last resort. We would try to simulate the given situation and study the behavior.

To simulate means 'to imitate'. In general, Simulation involves developing a model of real phenomenon and then performing experiments on the model evolved.

In Simulation, to generate data, we make use of Random Nos.

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Simulation consists of 4 phases:

- (i) Definition of the problem and statement of objectives.
- (ii) Construction of an appropriate model.
- (iii) Experimentation with the model constructed.
- (iv) Evaluation of the results of Simulation.

(b)

### Simulation of data at the village dispensary.

No. of Patients	Inter Arrival time Random No. (Mins.)	Entry time Into queue (Hrs.)	Service Time Random No. (Mins.)	Service Start Time (Hrs.)	End time (Hrs.)	Waiting Time of Patient (Mins.)	Idle time of doctor (Mins.)
1	07	8.07	23	8.07	8.30	-	07
2	21	8.28	37	8.30	9.07	2	-
3	12	8.40	16	9.07	9.23	27	-
4	80	10.00	28	10.00	10.28	-	37
5	08	10.08	30	10.28	10.58	20	-
6	03	10.11	18	10.58	11.16	47	-
7	32	10.43	25	11.16	11.41	33	-
8	65	11.48	34	11.48	12.22	-	07
9	43	12.31	19	12.31	12.50	-	09
10	74	01.45	21	01.45	02.06	-	55

Total (in minutes).                      129                      115

Average waiting time of patient =  $129/10 = 12.9$  minutes.

Average waiting time of doctor =  $115/10 = 11.5$  minutes.

4.

- (a) What are the shortcomings of the Balanced Score card? 4
- (b) Define the term 'Total Quality Management'. State its Objectives. 4
- (c) The following details relating to the Product 'X' during the month March, 2011 are available.

You are required to compute:

- (i) Material Price Variance.
- (ii) Material Usage Variance.
- (iii) Material Cost Variance.
- (iv) Labour Rate Variance.
- (v) Labour Efficiency Variance.
- (vi) Labour Cost Variance.

You are also required to reconcile the standard and actual cost with the help of such variances.

Standard Cost per unit:

Materials 50 kg. @ ₹ 40 per kg.

Labour 400 hrs. @ ₹ 1.00 per hour

Actual Cost for the month:

Material 4,900 kgs. @ 42 per kg.

Labour 39,600 hours @ ₹ 1.10 per hour

Actual production—100 units

6+1=7

**Answer:**

- (a) Short comings under the Balance Scorecard  
There are mainly two shortcomings noticed in the Balance Scorecard. They are
  - (i) Community and Environmental issues are found missing under Balance Scorecard. In fact today these two issues are the most critical issues.

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- (ii) Competitors have not been included under Balance Scorecard. Companies are required to monitor the environment to track competitor activities and technological developments.

These criticisms mainly stem from the fact that the BSC is not a multiple stakeholder framework. Any performance measurement framework needs to reflect the needs of all the important stakeholders.

Conclusion: these shortcomings, however, should not detract from the inherent merit of the BSC, which helps to clarify, consolidate and gain consensus around the strategy of the organization. BSC is a very powerful tool for strategy implementation. The shortcomings as pointed out may be added as its additional perspectives.

**(b) Total Quality Management (TQM):**

TQM is an integrative philosophy of management for continuously improving the quality of products and processes. TQM is a management approach to long-term success through customer satisfaction. In other words, TQM is a comprehensive and a structured approach to Organizational management that seeks to improve the quality of Products and Processes.

TQM is based on the premise that the quality of Products and Processes is the responsibility of everyone, involved with the creation of consumption of the products or services which are offered by an organization, requiring the involvement of management, work-force, suppliers and customers to meet or exceed customer expectations. It is a management philosophy and company practices that aim to harness the human and material resources of an organization in the most effective way to achieve the objectives of the organization. It is a management system for a customer-focused organization with total employee-involvement.

**(c)**

<b>Standard Cost (SC):</b>	₹
Material 100 x 50 kgs. = 5,000 kgs. @ ₹ 40 =	2,00,000
Labour 100 x 400 = 40,000 hrs. @ ₹ 1.00 =	40,000
	2,40,000

<b>Actual Cost (AC)</b>	₹
Material 4,900 kgs. @ ₹ 42 =	2,05,800
Labour 39,600 hrs. @ ₹ 1.10 =	43,560
	2,49,360

<b>Material Variances</b>	₹
<b>(i)</b> Material Price Variance (MPV) = $AQ(SR-AR) = 4,900(40-42) =$	9,800 A
<b>(ii)</b> Material Usage Variance (MUV) = $SR(SQ-AQ) = 40(5,000-4,900) =$	4,000 F
<b>(iii)</b> Material Cost Variance (MCV) = $SC-AC = 2,00,000 - 2,05,800$ =	5,800 A

<b>Labour Variances</b>	₹
<b>(iv)</b> Labour Rate Variance (LRV) = $AHP(SR-AR) = 39,600(1.00-1.10) =$	3,960 A
<b>(v)</b> Labour Efficiency Variance (LEV) = $SR(SH-AHP) = 1.00(40,000-39,600) =$	400 F
<b>(vi)</b> Labour Cost Variance (LCV) = $SC-AC = 40,000-43,560 =$	3,560 A

Reconciliation between Standard Cost and actual Cost:

	₹
Standard Cost	2,40,000
Add: MPV	9,800 A

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MUV	4,000 F	
MCV	5,800 A	5,800 A
LRV	3,960 A	
LEV	400 F	
LCV	3,560 A	3,560 A
Actual Cost		2,49,360

5.

(a) What is 'Aggregate Planning'? State its techniques. 1+4=5

(b) Ankita Road Liner is a transport Company, that transport goods all over India and it measures quality of services in terms of:

- Time required to transport goods.
- On-time delivery.
- Number of lost or damaged cartons.

To improve its business prospects and performance, the company is seriously considering to install a Scheduling and Tracking System, which involves an annual outlay of ₹ 1,50,000, besides equipments costing ₹ 2,00,000 needed for installation of the system. The company proposes to utilize the proceeds of the Fixed Deposit maturing next month to purchase the equipment. The rate of interest at present on deposit is 10%. The company furnishes the following information about its present and anticipated future performance:

	Current	Expected
On-time delivery	85%	95%
Variable Cost per carton lost or damaged	₹ 50	₹ 50
Fixed Cost per Carton lost	₹ 30	₹ 30
Number of Cartons lost or damaged	3,000	1,000

The Company expects that each per cent point increase in on-time performance will result in revenue increase of ₹ 18,000 per annum. Contribution margin of 45% is required.

As a Professional Cost and Management Account, advise whether Ankita Road Liner acquire and install the new system. 10

**Answer:**

(a) Aggregate Planning is the process of developing, analyzing and maintaining a preliminary approximate schedule of the overall operations of an organization. The aggregate plan generally contains targeted sales forecast, production levels, inventory levels and customer backlogs. The schedule is intended to satisfy demand forecast at a minimum cost. In simple terms, aggregate planning is an attempt to balance capacity and Demand in such a way that the costs are minimized.

Two planning strategies available to the aggregate planner are:

- (i) Level Strategy and
- (ii) Chase Strategy.

Level Strategy seeks to produce an aggregate plan that maintains a steady production rate and /or a steady level of employment.

Chase Strategy implies demand and capacity period by period. Although it implies greater degree of flexibility for the firm, there is likely to be uneven level of employment from period to period.

(b) Costs incurred annually on the installation of new scheduling and tracking system:

	₹
Additional Annual Cost	1,50,000
Interest Foregone on Fixed Deposits (Opportunity Cost) (10% x ₹ 2,00,000)	20,000
Total Costs: (A)	1,70,000



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## Expected Savings in Costs on the installation of new scheduling and tracking system:

	₹
Contribution margin from additional annual revenue (45% x ₹ 1,80,000) (Pl. refer to the working note)	81,000
Decrease in Variable Cost due to reduced number of cartons lost (3,000-1,000) x 50	1,00,000
Total Savings in Costs : (B)	1,81,000
Net Savings: B-A=1,81,000-1,70,000=	11,000

**Decision:** It appears from the above that the expected savings exceeds the additional costs by ₹ 11,000. Hence the company should go ahead with the installation of new working schedule and tracking system.

### Working Notes:

Computation of Additional Revenue Increase:

As each percentage increase in on-time performance results in revenue increase of ₹ 18,000 per annum, therefore a 10% increase in on-time performance increase will result in additional revenue increase to the tune of ₹ 1,80,000.

6.

(a) What is the 5-S concept?

(b) What is EFQM? What is its role?

(c) What are the scopes of Enterprise Risk Management?

5+5+5=15

Answer:

(a) **The 5-S Concept:** The 5-S Concept is an integrated concept for house-keeping or workplace management evolved by the Japanese. The 5-Ss are:

(i) SEIRI - Organization or Re-organization.

(ii) SEITON - Neatness

(iii) SEISO - Cleaning

(iv) SEIKETSU - Standardization

(v) SHITSUKE - Discipline.

While 'SEIRI' helps us to decide what are the items needed, "SEITON" involves safety and productivity. 'SEISO' means to take up the job of cleaning, while 'SEIKETSU' is nothing but standardization. 'SHITSUKE' stands for disciplining the system.

(b) **European Foundation for Quality Management (EFQM):**

EFQM is a non-profit membership foundation. This foundation is the primary source for organizations in Europe, looking to excel in their market and in their business. EFQM is now the hub of excellent, globally minded organizations of all sizes and sectors.

Specifically designed to help organizations achieve excellence in their business initiatives, EFQM organization works to capture the best practices of globally-minded organizations and to turn this knowledge into practical resources for the business community.

EFQM is a vibrant network of organizations that share the same ambitions to drive excellence through the organization and aspire to reach excellence.

(c) **Enterprise Risk Management(ERM)**

Enterprise Risk Management is a process, effected by an entity's Board of Directors, Management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.

The underlying premise of Enterprise Risk Management is that every entity exists to provide value for its stakeholders. All entities face uncertainty and the challenge for management is to determine how much uncertainty to accept as it strives to grow

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stakeholder value. Uncertainty presents both risk and opportunity, with the potential to erode or enhance value. Enterprise Risk Management enables management to deal effectively deal with uncertainty and associated risk and opportunity, enhancing the capacity to build value.

Scope of ERM: ERM encompasses:

- Aligning risk appetite and strategy
- Enhancing risk response decisions
- Reducing operational surprises and losses
- Identifying and managing multiple and cross-enterprise risks
- Seizing opportunities
- Improving deployment of capital.

7.

(a) What are the benefits of Activity Based Costing? 5

(b) Karishma Enterprises produces a Product X, using Raw Materials A and B. The Standard Mix of A and B is 1:1 and the Standard Loss is 10% of input. Compute the missing information indicated by '?' based on the data given below:

Particulars	A	B	Total
Standard price of Raw Material (₹/Kg.)	24	30	
Actual Input (Kg.)	?	70	
Actual Output (Kg.)			?
Actual Price (₹/Kg.)	30	?	
Standard Input Quantity (Kg.)	?	?	
Yield Variance (Sub Usage)	?	?	270(A)
Mix Variance	?	?	?
Usage Variance	?	?	?
Price Variance	?	?	?
Cost Variance	0	?	1300(A)

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Answer:

(a) **Benefits of Activity Based Costing:**

**Activity based costing system has the following main advantages / benefits:**

- (i) More accurate costing of products/services, customers, SKUs, distribution channels.
- (ii) Better understanding overhead.
- (iii) Easier to understand for everyone.
- (iv) Utilizes unit cost rather than just total cost.
- (v) Integrates well with Six Sigma and other continuous improvement programs.
- (vi) Makes visible waste and non-value added activities.
- (vii) Supports performance management and scorecards
- (viii) Enables costing of processes, supply chains, and value streams
- (ix) Activity Based Costing mirrors way work is done

(b)

1. Let the Standard input of 'A' = 'Q' kg.

Therefore the total standard input for A+B = 2 Q.

Actual Input = (2Q+10) kgs.

Therefore, Actual Input for 'A' = (2Q+10-70) = (2Q-60)kgs.

2. Material Cost Variance of 'A' = (1) - (2) = Nil.

So, (Qx24) - (2Q-60)x30 = 0

Thus, Q=50 kgs.

Therefore, Total Standard Quantity for A & B is 50 kgx2 = 100 kg (Since it is in proportion of

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1:1).

Actual input is 100 kg+ 10% normal loss = 110 kg.

Since Actual input for 'B' is 70 kg, for 'A' ,it is 40 kg.

3. Material Cost Variance = MCV of A + MCV of B = 1300 A.

Since MCV of A is Nil, MCV of B is 1300 A.

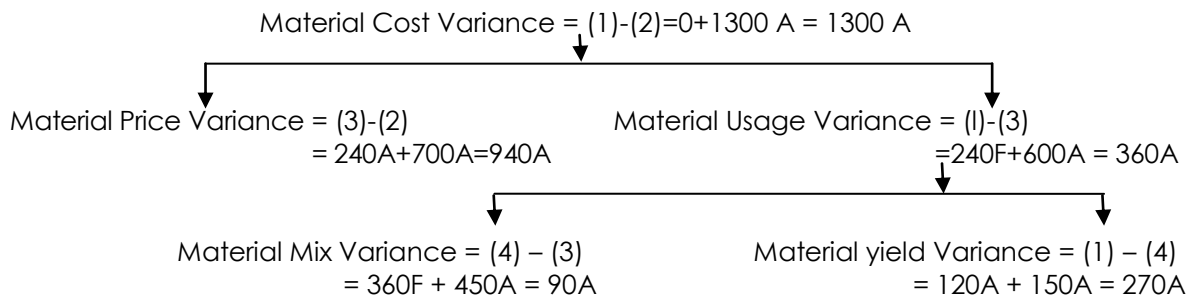
Let Actual Price of 'B' = ₹ P. So, (1)-(2) = (50x30) - (70xP) = -1300.

Or, 1500-70P = -1300. On Solving, P=40. Hence AP of 'B' is ₹40.

4. Total AQ = 40 + 70 = 110 kg. Hence, RAQ = 110 kg, rewritten in standard mix as 1 : 1 = 55 kgs. each.

	SQ x SP	AQ x AP	AQ x SP	RAQ x SP
	(1)	(2)	(3)	(4)
A	(WN1) 50x24 (given)	(WN2) 40x30 (given)	(WN2) 40x24 (given)	(WN4) 55x24 (given)
B	(WN1) 50x30 (given)	(given) 70x40 (WN3)	(given) 70x30 (given)	(WN4) 55x30 (given)
T o t a l	2,700	4,000	3,060	2,970

Variances:



Answer:

Particulars	A	B	Total
Actual Input (Kg.)	40	70	-
Actual Output(kg)			90
Actual Price ₹/Kg.	30	40	
Standard Input Quantity(kg)	50	50	
Yield Variance (Sub usage)( ₹)	120 A	150A	270A
Mix Variance(₹)	360F	450A	90A
Usage Variance(₹)	240F	600A	360A
Price Variance(₹)	240A	700A	940A
Cost Variance(₹)	0	1300 A	1300A

8. Write a short note on any 3 out of the following:

- (a) ERP;
- (b) Budget Process and its impact on human behavior;
- (c) Benefits of Intranet;
- (d) Different types of Benchmarking.

3x5=15

Answer:

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(a) **Enterprise Resource Planning (ERP):** The term 'Enterprise' is used to describe a corporate entity e.g., TELCO/Hindustan Lever Ltd., In an enterprise, we have several departments, each working in isolation, with its own goals and objectives. ERP systems help to integrate all the department's information systems and enable smooth and seamless flow of information across departmental barriers, automating business processes and functions and helps organizations to work and move forward as a single entity.

ERP thus, refers to a computer information system that integrates all the business activities and processes throughout an entire organization. ERP systems incorporate many of the features available in other types of manufacturing programs, such as Project management, supplier management and product data management and scheduling. The objective of ERP is to provide seamless, real-time information to all employees throughout the enterprise. Companies commonly use ERP systems to communicate the progress of orders and projects throughout the supply chain and to track the costs and availability of value-added services.

ERP systems offer companies the potential to streamline operations, eliminate overlaps and bottle-necks and save money and resources.

(b) **Budget Process and its impact on human behavior:** The Budget Process affects Human Behaviour in three aspects:

(i) **Formulation of Budgets:** The Budget Process may be top-down, determined wholly by top management. This may engender a feeling of budgets being thrust upon employees who perceive them as pressure devices. As a result, their full enthusiasm may not be forthcoming in implementing it. In case the budget is formulated with a bottom-up approach, involving employees, commitment for meeting the budget can be assured.

(ii) **Fixing targets:** Sales production and other targets that are fixed should be challenging but attainable so as to bring out the best efforts of individuals. If targets are so high, as to be unattainable, it may be demotivating for the employees: in some cases it may also lead to manipulation of data to ensure conformity with budget.

However such manipulations will have adverse effects in the long run. A common practice of sales manager is to dump stocks on their dealers at the year end to meet sales targets, perhaps giving unduly long credit.

(iii) **Evaluation of performance:** The evaluation of performance should be done in a constructive manner and not in a vindictive style. While variances may be thrown up by the system, the causative factors may not be known readily. Hence it is necessary to analyze the reasons for variance and ensure proper accountability.

(c) **Benefits of Intranets:** An Intranet is a private computer network that uses Internet protocols and network connectivity to securely share part of an organization's information or operations with its employees. An Intranet can be understood as "a private version of an Internet" or as a version of the internet confined to an organization.

## **Advantages:**

(i) **Workforce productivity:** Intranets can help users to locate and view information faster and use applications relevant to their roles and responsibilities.

(ii) **Time:** Employees can link to relevant information at a time which suits them.

(iii) **Communication:** Intranets can serve as powerful tools for communication within an organization, both vertically as well as horizontally.

(iv) **Knowledge Management:** Web publishing allows cumbersome corporate knowledge to be maintained and easily accessed throughout the company, using hypermedia and web technologies.

(v) **Business operations and Management:** Intranets are also being used as a platform for developing and deploying applications to support business operations and decisions across the internetworked enterprise.

(vi) **Cost-effective:** Users can view information and data via web-browser rather than

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maintaining physical documents.

(vii) **Promote common corporate culture.**

(viii) **Enhances collaboration.**

**(d) Different types of Benchmarking:**

The practice of setting targets using external information is known as "Benchmarking". Benchmarking is the continuous process of enlisting the best practices in the world for the process, goals and objectives leading to world-class levels of achievement. Benchmarking implies that there is one best way of doing business and orients the firm accordingly.

**Types of Benchmarking:** The different types of Benchmarking are:

- (i) **Product Benchmarking** (Reverse Engineering): This is an old practice of product oriented reverse engineering. Every organization buys its rival's products and tears them down to find out its features and performances.
- (ii) **Competitive Benchmarking:** is a measure of organizational performance compared against competing organization. It studies the target specific product designs, process capabilities and the administrative methods used by a company's direct competitors.
- (iii) **Process Benchmarking:** is the activity of measuring discrete performance and functionality against organizations through performance in excellent analogous business processes.
- (iv) **Internal Benchmarking:** is an application of process benchmarking performed, within an organization by comparing the performance of similar business units.
- (v) **Strategic Benchmarking** is an application of process benchmarking of the level of business strategy, a systematic process for evolving alternatives, implementing strategies, and improving performance by understanding and adapting successful strategy from external partners who participated in an on-going business alliance.
- (vi) **Global Benchmarking:** the extension of strategic benchmarking to include benchmarking partners on a global scale.