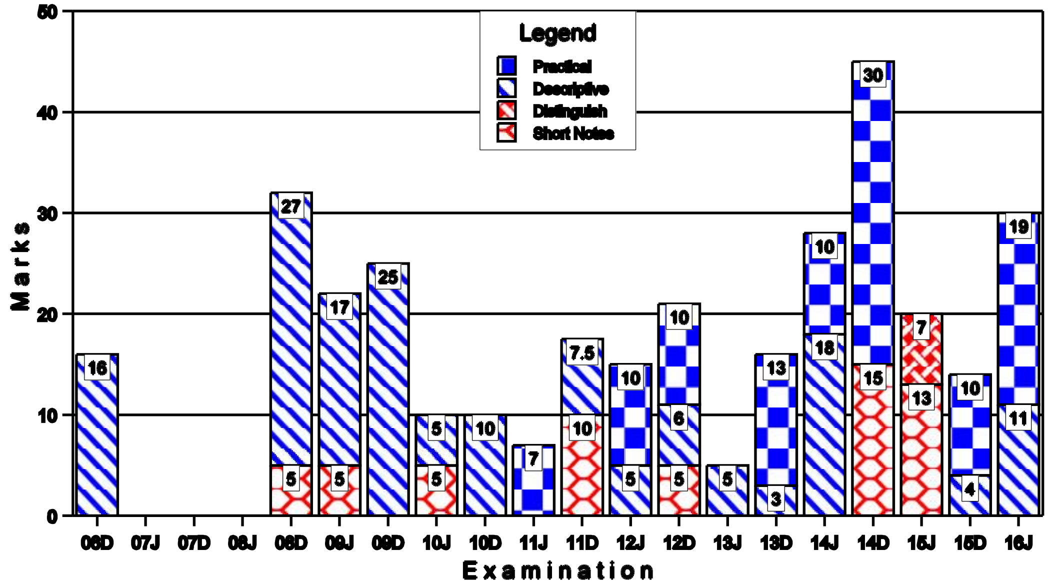
1 Strategic Cost Management, Control & Decision Making

This Chapter Includes : Strategic Cost Management; Strategic Cost Analysis; JIT; BPR; Cost Control and Reduction; Decision Making and Pricing Strategies; Operating Costing; Transfer Pricing; Relevant Cost Analysis; Target Costing; Life Cycle Costing; Kaizen Costing.

Marks of Short Notes, Distinguish Between, Descriptive & Practical Questions



Summary of Chapter at a Glance

Transfer Pricing: A transfer price is the notation value placed on goods and services transferred from one division to another division. Product transfer may include partly finished goods or finished goods transferred for use.

Questions of December - 2007 are from CMA Gr. I and from December - 2008 onwards are from CMA Gr. II New Course.

Object of Transfer Pricing: The main object of transfer pricing are as follows-

(i) To develop a commercial attitude in those who are responsible for the performance of profit centers. The main emphasis here is on profitability.

(ii) In a given short period of time to optimize the profit of a company.

(iii) Optimum use of given financial resources.

(iv) To minimize overtax burden international groups may try to manipulate transfer pricing between countries.

Method of transfer Pricing- Pricing is influenced by two systems if there are many independent units of an organisation:

1. **Laissez faire:** In this system, each independent unit has full freedom to negotiate the prices of its goods and services.
2. **Centrally imposed system:** In this system, the pricing by independent units is regulated by guidelines laid down by top management.

There are six - method of transfer pricing:

1. Cost–based transfer pricing
2. Market Pricing
3. Bargained or Negotiated Pricing

1. **Cost–based transfer pricing:** Various method of Cost –based transfer pricing
   i. Actual Cost of production-
   ii. Variable Cost
   iii. Standard Cost
   iv. Cost of Sales
   v. Cost of Sales Plus
   vi. Opportunity Cost Based Transfer pricing
   vii. Prorating based transfer pricing
2. **Market Pricing:** Under this method, the transfer pricing to other division are based on market price.
3. **Negotiated Transfer Pricing:** All independent unit are allowed to fix the prices after negotiations or bargaining. Divisional managers have full freedom to go for outside purchases if prices quoted by other division are not acceptable to them.
4. **Dual Transfer Pricing:** Under Dual Transfer Pricing method more than one price is recorded in the books as
   ⇒ Charge receiving division with variable cost and credit the supplying division with an amount in excess of variable cost.
   ⇒ Allowing a fix mark-up on variable cost and fixed cost of the supplying division.
   ⇒ Charging the buying centre with synthetic market price and crediting supplying centre with standard variable cost plus mark-up or full cost plus normal mark-up.
5. **Synthetic Market Pricing:** It represents variable cost of the selling responsibility centre plus the opportunity cost to the company as a whole.
6. **International Transfer Pricing:** International Transfer Pricing has the following objective
   ⇒ Income tax minimization
   ⇒ Import duty minimization
   ⇒ Avoidance of financial problems

⇒ Improvement of financial results
⇒ Adjustment of currency fluctuations.

International Transfer pricing methods:

⇒ Comparable uncontrolled price method.
⇒ Re-sale price method
⇒ Cost plus method
⇒ Profit split method
⇒ Transactional net margin method
⇒ Any other method as may be prescribed by CBDT.

SHORT NOTES

2008 - Dec [5] Write short note on the following:

(c) Strategic Total Cost Management; (5 marks)

Answer :

Strategic Total Cost Management : Alignment of various strategic exercises is in operations, marketing or finance needs to take the entire organization into consideration. Besides, these strategies will have to inculcate a paradigm change from the traditional approach to the world class approach. When total cost management strategy is to be implemented, it is necessary that certain new concepts are understood. Classification of costs has always been into variable, semi-variable, fixed categories. When cost as a strategy is to be implemented it presupposes that there is a time horizon which is longer than a few accounting periods. In such a time span even the so called fixed costs tend to vary e.g., rent, taxes, salaries, etc. So, the total cost management strategy has evolved a new classification namely, bed rock fixed costs e.g., depreciation, patent, amortization; managed costs rent, taxes, salaries and wages, maintenance, travel, advertising, etc. and truly variable costs include materials, royalties, freight, overtime costs, etc. This classification helps arriving at break even points which are more credible and take into consideration the changes in the costs over a period. A single break even is not possible and not acceptable in the total cost management. Another very important feature of total cost management is that almost all costs are manageable through cost strategy as even period costs tend to vary over time. For instance, rents which are considered period costs as fixed under normal parlance are treated as managed costs in total cost management strategy. This is particularly so, because the quantum of rent variation can be managed through leasing, rent or own strategies, tax planning, etc. Introduction of total cost management strategy can embrace many different areas in business and as such there are specific tools to be employed for the implementation as follows:

1. **Enterprise wide cost system:** Depicts beginning to end costs starting from designing, sourcing, manufacturing and delivering a product or set of products to the customer.
2. **Production cost management:** Aims at reduction of total cost of design, material management, production by Kaizen method of optimizing each cost component.
3. **Marketing cost management:** Identifies products, brands, segments and markets that augur greater growth with least incremental marketing costs.

4. **Support cost management:** Aims at improving productivity and efficiency of all line functions while reducing the resources needed to provide such improvements.
5. **Transformation cost management:** Identifies and drives the efforts of change management towards avenues where they will have the maximum impact on costs for reduction.

2009 - June [8] Write short note on :
(b) Limitations of Market Based Transfer pricing. (5 marks)
Answer :
Please refer 2011 - Dec [8] (a) on page no. 186

2010 - June [4] (b) Write a short note on the following:
(ii) Product development strategy. (5 marks)
Answer :
This is a strategy of increasing sales by improving present products or services or developing new products. Firms with an expensive distribution network may choose this to make most efficient use of it by marketing more products through. Product development activity performs a number of specific roles:
(a) Replacement of products which are in the maturity phase of PLC.
(b) Reduction of risk through production of a range of products.
(c) Brand extension.

2011 - Dec [4] Write short note on the following:
(b) Kaizen Costing (5 marks)
Answer :
Kaizen is a Japanese term meaning "change for the better". The concept of Kaizen encompasses a wide range of ideas; it involves making the work environment more efficient and effective by creating a team atmosphere, improving everyday procedures, ensuring employee satisfaction and making a job more fulfilling, less tiring and safer.
A method of costing that involves making continual, incremental improvements to the production process during the manufacturing phase of the product/service lifecycle, typically involving setting targets for cost reduction. Some of the key objectives of the Kaizen philosophy include the elimination of waste, quality control, just-in-time delivery, standardized work and the use of efficient equipment. An example of the Kaizen philosophy in action is the Toyota production system, in which suggestions for improvement are encouraged and rewarded, and the production line is stopped when a malfunction occurs.

2011 - Dec [8] Write short note on the following :
(a) Limitations of market-based transfer pricing; (5 marks)
Answer :
Limitations of Market based Transfer Pricing:
The main limitations of this method are:
(i) Difficulty in obtaining just market prices. Sometime it is difficult to obtain at all any market price for those very products which are manufactured only for internal consumption.

(ii) Difficulty in determining the elements of selling and distribution expenses such as commission, discounts, advertisement and sales promotion etc., so that necessary adjustment may be made in the market price to provide benefit of these expenses, to the profit centre, receiving the goods.

(iii) There may be resistance from the buying division. They may question buying from the selling division if in any way they have to pay the market price.

(iv) Market prices may be fluctuating; and hence there may be difficulties in fixation of these prices.

(v) Market price is rather a vague term as such prices may be ex-factory price, wholesale price, retail price, etc.

(vi) Market prices may not be available for intermediate products, as these products may not have any market.

(vii) The method may be difficult to operate if the intermediate product is for captive consumption.

2012 - Dec [3] (e) Write a brief note on 'Sensitivity Analysis'. (5 marks)

Answer:

The "Sensitivity Analysis (SA)" is the study of how the uncertainty in the output of a model (numerical or otherwise) can be apportioned to different sources of uncertainty in the model input. A related practice is uncertainty analysis which focuses rather on quantifying uncertainty in model output.

Ideally, uncertainty and sensitivity analysis should be run in tandem. In more general terms uncertainty and sensitivity analysis investigate the robustness of a study when the study includes some form of statistical modeling. Sensitivity analysis can be useful to computer modelers for a range of purposes including:

(i) Support decision making or the development of recommendations for decision makers (e.g. testing the robustness of a result);

(ii) Enhancing communication from modelers to decision makers (e.g. by making recommendations more credible, understandable, compelling or persuasive);

(iii) Increase understanding or quantification of the system (e.g. understanding relationships between input and output variables); and

(iv) Model development (e.g. searching for errors in the model).

Example; in any budgeting process there are always variables that are uncertain, like future tax rates, interest rates, inflation rates, headcount, operating expenses and other variables may not be known with great precision. SA answers the question, "if these variables deviate from expectations, what will the effect be (on the business, model, system or whatever is being analysed).

2014 - Dec [8] Write Short Notes on any **three** of the following:

(a) Different Pricing Strategies

(b) Areas of Cost Reduction and techniques to be adopted for Cost Reductions

(d) Kaizen Costing

(e) Strategies for combating 'hostile take-over' (5 marks each)

Answer:

(a) Different Pricing Strategies:

Pricing a product requires a lot of considerations according to different situations. In effect pricing is a very complex game played with regard to

(i) pricing policy laid down by the organization,
(ii) pricing objectives, and
(ii) external constraints.

Various strategies for pricing are prevalent:

(1) **Different pricing:** Based on quantities purchased, terms of payment, status of the buyers, bargaining power and location of the buyers. This policy is resorted only when the number of manufacturers and direct customers are limited and the demand and supply position is more or less balanced. It should be seen that a customer buying at a cheaper rate does not compete with the manufacturer.

(2) **Skimming price:** While introducing a new product, its price may be fixed at a high level. Large promotional expenses are needed at this stage. At a later stage with more competitors coming into the market, both the price and the promotional expenses may be reduced. Skimming pricing is possible for a new product where there are a few producers, demand is inelastic and/or the product appeals to the rich and affluent customers.

(3) **Penetration pricing:** Penetration price is a low price that appeals to the mass as quickly as possible. Sometimes for a new product the company may fix a low price only to increase it when it has captured the market. For the goods requiring heavy initial investment, the low price fixed by the introducing company will work as a deterrent to otherwise likely competitor producers. The product should have high price elasticity of demand and the volume of production should be high.

(4) **Target costing:** To enter a new market, a manufacturer has to consider the prices of the competitors' products. The estimated long run cost of the product which will enable a company to enter or to remain in the market competing with its competitors successfully is called target cost. Japanese producers of consumer goods often use target cost in their pricing strategies.

(5) **Cost plus price** is used when long-term cost cannot be predicted accurately e.g. in a government contract for bulk purchases.

(6) **Marginal cost pricing** is resorted to for entering a new market e.g. in dumping goods to a foreign market where the company wants to gain a foothold. It is a short-run measure in as much as no company can continue for long with prices which will not recover fixed overheads.

Answer:

(b) Areas of Cost Reduction and Techniques to be adopted for Cost Reductions:

Areas of Cost Reduction:

(1) Reduce payroll costs by outsourcing activities.
(2) Redesign processes to eliminate duplication of effort and time.
(3) Make more use of technology and automation.
(4) Consolidate purchasing with fewer suppliers to get better discounts and build

strong relationships.

(5) Agree to long-term supply contracts or annual purchase volumes in return for lower prices and negotiate longer payment terms.

(6) Trim back your product range and increase production runs.

(7) Get the most out of your premises by sub-letting spare space.

(8) Cut the cost of communications and travel by using email, internet calls (such as Skype) or teleconferencing whenever possible.

Cost Reduction Techniques

(1) **Standardization:** According to Kimball and Kimball , "By standardization in the manufacturing scene meant the reduction of any one line to fixed types, sizes and characteristics." In simple words standardization is the process of formulating and applying rules for an orderly approach to specific activity.

(2) **Codification:** It is a process of representing each item by a number, the digit of which indicates the group, the type and the dimension of item.

(3) **Value Analysis:** Value analysis is defined as an organized creative approach which has, as its objective, the efficient identification of unnecessary cost.

Answer:

(d) Kaizen Costing: KAIZEN costing is a cost-reduction system that is applied to a product in production. It comes from the combination of the Japanese characters 'kai' and 'zen' which mean 'change' and 'good,' respectively. The word 'Kaizen' translates to 'continuous improvement' or 'change for the better' and aims to improve productivity by making gradual changes to the entire manufacturing process. Some of the cost-reduction strategies employed involve producing cheaper re-designs, eliminating waste and reducing process costs. Ensuring quality control, using more efficient equipment, utilizing new technological advances and standardizing work are additional elements. To understand Kaizen costing, one first needs to grasp standard costing methodology. The typical standard costing approach works by designing a product first and computing costs by taking in to account material, labor and overhead. The resulting figure is set as the product cost. The standard cost is set and revised on a yearly basis. Cost deviation analysis involves checking to see whether the projected cost estimates tally with the final figures. Manufacturing procedures are assumed to be static.

Kaizen costing is based around improving the manufacturing process on a continual basis, with changes being implemented throughout the year. Cost-reduction targets are set on a monthly basis. The goal here is to reduce the difference between profit estimates and target profits. The cost deviation analysis done in Kaizen costing examines the difference between the target Kaizen costs and the actual cost reduction achieved. The basic idea here is to make tiny incremental cost reductions on a continual basis in a product's life cycle.

Answer:

(e) Strategies for combating "hostile take-over"

A target company which faces the threat of a hostile take-over can adopt the following strategies:

(i) Poison pill tactics

(ii) Green mail tactics

(iii) White knight tactics
(iv) Golden parachute tactics
(v) Divestiture tactics
(vi) Crown jewel tactics and
(vii) Legal tactics.

Poison pill tactics: This strategy aims at initiating action against the predator destroying the attractiveness of the firm. The following are some methods of doing this:

1. The acquiring company may issue substantial amount of convertible debentures to its existing shareholders.
2. The target firm may either sell off or mortgage or lease some of its precious assets.
3. The target firm may dispose off its liquidity by acquiring some asset.
4. The target company may grant its employees stock options that immediately vests if the company is taken over.

Green mail tactics: The target firm can purchase its own stocks at a premium to avert a takeover bid. The incentive is offered by the management of the target company to the potential bidder for not pursuing the takeover bid.

White knight tactics: The target company's management may seek out a friendlier potential acquiring company, who could offer a higher offer price, which would eventually drive away the original bidder. The purpose of 'White Knight Strategy' is to seek to find a bidder. The objective is to make the take-over exercise as much unviable and unprofitable as possible for the original bidder.

Golden parachute tactics: This is adopted by the target company by offering hefty compensations to its managers if they manage to get ousted due to takeover. This is pursued to reduce their resistance to takeover.

Divestiture tactics: The target company arranges to divest or spin off some of its businesses in the form of an independent subsidiary company, thus reducing the attractiveness of the existing business to the predator.

Crown jewel tactics: In this, the target company arranges to sell off its crown jewel, namely highly profitable part of the business or ones which the market values better in order to dissuade the predator.

Legal tactics: A target firm can forestall the possible takeover bid through legal mode. It takes the form of legal strategy' for guarding against hostile take-over. In this case, it is possible for the target firm to move a court of law for obtaining injunction against the offer.

2015 - June [4] (a) (ii) Write a note on "Kaizen Costing". (7 marks)

(c) (i) Write a short note on Pricing Strategies. (6 marks)

Answer:

(a) (ii) Kaizen costing is a cost reduction system. Yashihuro Moden defines Kaizen costing as "the maintenance of present cost levels for products currently being manufactured via systematic efforts to achieve the desired cost level." The word kaizen is a Japanese word meaning continuous improvement. It comes from the combination of the Japanese characters 'kai' and 'zen' which mean 'change' and 'good,' respectively. The word 'Kaizen' translates to 'continuous improvement' or 'change for the better' and aims to improve productivity by making gradual changes to the entire manufacturing process. Some of the cost-reduction strategies employed involve producing cheaper re-designs, eliminating waste and reducing process costs. Ensuring quality control, using more efficient equipment, utilizing new technological advances and standardizing work are additional elements.

Kaizen Costing thus stands for making improvement to a process through small incremental amounts, rather than through large innovation. Kaizen Costing focuses on the production process and the cost reductions are derived primarily through the efficiency of the production process. As the products are already in the manufacturing stage of their life cycles, the potential cost reductions are smaller- the aim of Kaizen costing being to reduce the cost of components and products by a pre-specified amount. For example, each plant in a manufacturing unit may be assigned a target cost reduction ratio and this is applied to the previous year's actual costs to determine the target cost reduction.

Kaizen Costing relies heavily on employee empowerment. They are assumed to have superior knowledge about how to improve processes because they are closets to the manufacturing processes and customers, and are likely to have greater insights into how costs can be reduced.

Kaizen costing is applied to products that are already in production phase. Prior to kaizen costing, when the products are under development phase, **target costing** was applied.

Kaizen Costing is a **process** wherein a product undergoes **cost reduction** even when it is already on the **production stage**. The **cost** minimization can include **strategies** in **effective waste management**, continuous product **improvement or better deals** in the **acquisition** of **raw materials**.

Thus, kaizen costing is really designed to repeat many of the value engineering steps for as long as a product is produced, constantly refining the process and thereby stripping out extra costs. The cost reductions resulting from kaizen costing are much smaller than those achieved with value engineering but are still worth the effort since competitive pressures are likely to force down the price of a product over time, and any possible cost savings allow a company to still attain its targeted profit margins while continuing to reduce cost.

The use of multiple generations of products to meet the challenge of gradually reducing costs. The market price continues to drop over time, which forces a company to use both target and kaizen costing to reduce costs and retain its profit margin.

However, prices eventually drop to the point where margins are reduced, which forces the company to develop a new product with lower initial costs and for which kaizen costing can again be used to further reduce costs. This pattern may be repeated many times as a company forces its costs down through successive generations of products. The exact timing of a switch to a new product is easy to determine well in advance since the returns from kaizen costing follow a trend line of gradually shrinking savings and prices also follow a predictable downward track, plotting these two trend lines into the future reveals when a new generation of product must be ready for production.

Since the goal is to reduce costs on a monthly basis, every department in the company makes an effort to introduce operational changes on a daily basis. The Kaizen approach calls for analyzing every part of the process and generating ideas on how they can be further improved. Kaizen costing takes into account aspects such as time-saving strategies, employee efficiency and wastage reduction while incorporating better equipment and materials.

The fundamental basis of the Kaizen approach centers around recognizing that employees who work on a particular job are aware of how that particular task can be greatly improved. They are then empowered to do so in the Kaizen costing system. Employees are treated as valuable sources of viable solutions, an approach that differs greatly from the standard cost system that views employees as laborers with variable performance levels.

Basic Principles of Kaizen Costing: There are certain basic principles which are followed in various Japanese companies, which are listed below:

Focus on Customers: The Kaizen philosophy has only one prime objective of customers' satisfaction.

Make improvements continuously: There is not a best way to do a thing. There is still a better way. In a Kaizen company, the search for excellence just does not end. We should work on the improvement implemented and see if we can make it even more effective.

Acknowledge Problems openly: Every company has certain problems. Kaizen is based on the assumption that "Fight with your problems, Do not run away from them",

Promote openness: All the senior managers shall have open cabins, having the same dress code and with the same canteen for all.

Create work teams.

Cross functional teams: Kaizen states that no individual or team has all the required skill and knowledge to complete a task. Cross-functional teams help in getting all the valuable information from the view of all the related people. It calls for letting ideas to flow as wide as running on moon.

Answer:

(c) (i) Pricing a product requires a lot of considerations according to different situations. In effect pricing is a very complex game played with regard to (i) pricing policy laid down by the organization, pricing objectives, and (ii) external constraints.

Various strategies for pricing are prevalent:

1. **Different pricing:** Based on quantities purchased, terms of payment, status of the buyers, bargaining power, location of the buyers. This policy is resorted only when the number of manufacturers and direct customers are limited and the demand and supply position is more or less balanced. It should be seen

that a customer buying at a cheaper rate does not compete with the manufacturer.

2. **Skimming price:** While introducing a new product, its price may be fixed at a high level. Large promotional expenses are needed at this stage. At a later stage with more competitors coming into the market, both the price and the promotional expenses may be reduced. Skimming pricing is possible for a new product where there are a few producers, demand is inelastic and/or the product appeals to the rich and affluent customers.
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6. **Marginal cost pricing** is resorted to for entering a new market e.g. in dumping goods to a foreign market where the company wants to gain a foothold. It is a short-run measure in as much as no company can continue for long with prices which will not recover fixed overheads.

DISTINGUISH BETWEEN

2015 - June [4] (b) (ii) Distinguish between Cost Reduction and Cost Control. (7 marks)

Answer:

Difference between Cost Reduction and Cost Control:

Particulars	Cost Reduction	Cost Control
1. Permanence	Permanent, Real and reflects genuine savings in cost.	Represents efforts made towards achievement of pre-determined target or goal.
2. Nature of function	It is a corrective function. It can operate along with an efficient cost control system. This concept Believes that there is always a scope for further reduction in costs.	It is a preventive function, where costs are optimized before these are incurred.

3. Nature of process	It presumes the existence of concerned potential savings in norms or standards and therefore it is a corrective process.	It does not focus on costs independent of revenue nor considers product attributes as given. It is a holistic control process.
4. Performance evaluation	It is not concerned with maintenance of performance according to standards.	The process involves setting up a target, investigating variances and taking remedial measures to correct them.
5. Nature of Standards	Continuous process of critical examination includes analysis and challenge of standards. It assumes the existence of potential savings in the standards and aims at improving them by bringing out more savings.	It accepts the standards, once they have been fixed. In other words, standards shall remain, as it is.
6. Dynamism	Fully a dynamic approach.	It is a routine exercise and lacks dynamic approach.
7. Coverage	Universally applicable to all areas of business. Does not depend upon standards, though target amounts may be set.	Limited applicability to those items of cost for which standards can be set.
8. Basic approach	It is not concerned with maintenance of performance according to standards. It challenges the very standards set.	It involves setting up a target, ascertaining the actual performance and doing the variance analysis, followed by remedial actions.

DESCRIPTIVE QUESTIONS

2006 - Dec [15] (a) State the methods of generating new product ideas.
(8 marks)

(b) State the basic requirements of a new product development and strategy.
(8 marks)

Answer : (a)

The methods of generating new product ideas are as listed below			
Origin/Source	**Popular Methods**		
Customers	Survey		Focus Group

Competitors	Systematic Comparison	Benchmarking	Development in similar industries
Distributors	Suggestions and their feedback about present product		
Creative Techniques	Customer constraints	Usage surveys	
Laboratories	Scientific Journals	Product testing	

Answer:

(b) The basic requirements or steps of new product development are:

(a) Exploration
(b) Screening
(c) Business Analysis
(d) Development
(e) Testing
(f) Commercial Production

The pre-requisites for new product development are:

(a) Competent R&D
(b) Competent engineering/design
(c) Acceptance of challenges
(d) After-sales services

For a new product strategy, the basic requirements are:

(a) Customer acceptance
(b) Satisfactory performance
(c) Economic production
(d) Packaging and
(e) After sales services

2008 - Dec [1] {C} (b) Define the following term (in not more than two sentences);
(v) Marketing Strategy. (2 marks)

Answer :

Marketing strategy is a process that can allow an organization to concentrate its limited resources on the greatest opportunities to increase sales and achieve a sustainable competitive advantage.

2008 - Dec [3] (a) Management Accountant finds himself at the cross roads in the 21st Century.‑Comment. (10 marks)

(b) What, in your opinion are the ways he needs to equip himself to be a strategic cost management accountant. (10 marks)

Answer :

(a) Management accountant in the 21st century finds himself at the cross roads. From the ivory tower of purely accounting, the management accountant has now to confront challenges which are cross functional. He has become a change agent and also a catalyst to the growth of any company. The cross functional status requires the management accountant to be familiar with all the lines of activities, namely marketing, production, human resources, research and development.

Answer:

(b) The management accountant has to equip himself in the following ways to be a strategic cost management accountant:

1. **Needs exposure to multi-disciplines:** Functional milieu has changed and water tight compartments do not exist. Team work with peers in different areas is a must.
2. **Be the change agent:** Help understand environment and introduce necessary changes within the system to cope up with the fast changing world in the context of the third wave.
3. **Help build strategic cost management:** Develop analytical skills for benchmarking Exercises, SWOT analysis, activity orientation, target costing, focus on both cost leadership and product differentiation.
4. **Integrate customer satisfaction into total cost management using value chain analysis:** This aspect identifies the area of maximum value addition and the need to relate value to customer satisfaction in quantitative terms.
5. **Be part of the management team:** Step outside the ivory tower and mingle with the main stream to introduce total cost management practice. This aspect incorporate use of cost tables, shop floor exercises, interpretation of technical and efficiency improvements in terms of value.
6. **Especially,** in the context of business strategies the role of management accountant as a change agent has been indicated earlier. However, it will be useful to define the role of the management accountant in the entire strategy formulation and implementation exercise.

2008 - Dec [6] (b) Explain the methods of Transfer Pricing. (5 marks)

Answer :

Methods of Transfer Pricing:

Methods of Transfer Pricing usually employed in industry when goods or services are transferred from one unit to the other unit.

1. At cost or variants of cost e.g. actual manufacturing cost; standard cost; full cost and full cost plus mark up.
2. At market price.
3. At bargained or negotiated prices.

Pricing at Cost

(a) **Actual cost of production :** In this method goods or services are transferred at their actual cost of production. It is useful for those units where the responsibility or profit performance is centralized.

(b) **Standard cost :** Under this method all transfers are valued at their standard cost. Any difference between actual and standard cost viz., variances are usually absorbed by the supplying unit.

(c) **Cost of Sales/Full cost :** Under this method, in addition to actual cost of production, expenses like selling and distribution, administration, research and development cost etc are also allowed to be recovered from user division. In this method, the supplying unit is not allowed to make any profit on transfers to other units. But it is free to earn profit on outside sale.

(d) **Full cost plus mark up :** Under this method the supplying unit transfers goods and services at full cost plus some mark-up or allowance for profit. This allowance is either expressed as a percentage of capital employed or cost of sales. Selling expenses here are recovered by the supplying unit without incurring them, especially when the goods/services are transferred internally.

Pricing at market price : Under this method, the transfer prices of goods/services transferred to other units/divisions are based on market prices. In a competitive market goods/services cannot be transferred to its users at a higher price. Such a competitive market provides an incentive to efficient production. Since market prices will, by and large be determined by demand and supply in the long run, it is claimed that profits which results under this method will provide a good indicator of the overall efficiency of the various units.

Competitive market prices provide reliable measures of divisional income because these prices are established independently rather than by individuals who have an interest in the results.

Negotiated Price : Here each decentralized unit is considered as an independent unit and competitive price is arrived at by negotiation or bargaining. The divisional managers have full freedom to go for outside purchase if the prices quoted by other divisions are not acceptable to them.

2009 - June [1] {C} (c) Define the following term (in not more than two sentences):

(ii) Cost of Capital (2 marks)

Answer :

The cost of capital is the expected return that the provider of capital plans to earn on the investment, which should exceed the aggregate of the cost of equity and preference capital as well as debt.

2009 - June [4] (a) Explain the term "Strategic Cost Management."

(5 marks)

(b) 'In the context of business strategies the management accountant plays the role of a change agent.' Elucidate the statement bringing out the management accountant's contribution at each stage of the strategy building exercise in an organisation. (10 marks)

Answer :

(a) **Strategic Cost Management :** Strategic Cost Management is the development of cost management information to strategic management. It is a way to address cost concerns while preserving the key parts of the business. It depends upon the willingness and ability to think differently. It is an effective way of reducing cost, increasing revenues and survivals in the competitive world.

Answer:

(b) In the context of business strategies the role of management accountant as a change agent has been indicated earlier. However, it will be useful to define the role of the management accountant in the entire strategy formulation and implementation exercise. The following table gives a contribution of the management accountant at each stage of strategy building exercise. As a change agent the Management Accountant plays a crucial role in the entire strategy formulation and implementation exercise in the following manner:

1. **Validation of vision :** Be part of feedback sessions for validation to identify the impact of financial aspect.
2. **Validation of mission :** Be part of feedback sessions for validation to identify the impact of financial aspect.
3. **Environmental scan and SWOT analysis :** Research, collect and collate information on key environmental factors including statutory regulations and competitive activity.
4. **Strategic change portfolio :** Be part of cross functional team to lay down strategic initiatives in a chronological order over the time horizon of the strategy.
5. **Identify critical success factors (CSF)**[Set targets, Prepare annual budgets to dovetail to long range forecasts, Identify tools for measurement both financial and non-financial]- Is fully involved in all the activities as his role for developing both targets, measures and interpretation of deviations through proper tools like Balanced scorecard, EVA, strategy maps, etc.
6. **Sustain Kaizen :** Be part of cross functional teams to identify assumptions and CSFs which need revision. Be part of the cross functional team to identify critical business process which need specific attention for modification and improvement.

Thus the management accountant takes on the strategic change portfolio to a great extent because he is the thread which runs through formulation, implementation and sustaining momentum for further modification and improvement.

2009 - Dec [2] (b) The world class approach to Cost Management would require understanding the total production management, total quality management and align the total Cost Management on the lines of the other two strategies. How is it accomplished? (2 marks)

Answer :

Please refer 2010 - June [5] (b) on page no. 206

2009 - Dec [4] (a) "Strategic Management is considered to be that type of management through which an organization tries to obtain a good fit with its environment:" Explain briefly how forecasting can assist an organization to obtain a good fit with its environment. **(8** marks)

Answer :

Strategic planning focuses largely on managing interaction with environmental forces, which include competitors, government, suppliers, customers, various interest groups and other factors that affect your business and its prospects. Your ability as a small business owner-manager to deal with these groups will vary widely depending on the group and on the timing. Also, you may be able to get more of what you want from a supplier than from a competitor (although size, distance, the percentage of the supplier's business you represent and your record of dependability as a customer can affect this relationship). How you manage these and other relationships is one of the decisions you will make during the strategic planning process.

Extending past trends and adjusting for what is expected is a common approach to preparing a forecast. However, we can improve forecasting by using several techniques. The first step is to recognize certain fundamentals about forecasting:

1. Forecasting relies on past relationships and existing historical information. If these relationships change, forecasting becomes increasingly inaccurate.
2. Since forecasting can be inaccurate due to uncertainty, we should consider developing several forecasts under different scenarios. We can assign probabilities to each scenario and arrive at our expected forecast.
3. The longer the planning period, the more inaccurate the forecast. If we need to increase reliability in forecasting, we should consider a shorter planning period. The planning period depends upon how often existing plans need to be evaluated. This will depend upon stability in sales, business risk, financial conditions, etc.
4. Forecasting of large inter-related items is more accurate than forecasting a specific itemized amount. When a large group of items are forecasted together, errors within the group tend to cancel out. For example, an overall economic forecast will be more accurate than an industry specific forecast.

2009 - Dec [5] (b) Discuss the principal elements of “Marketing Mix” and identify those elements that would be particularly relevant to a manufacturer of heavy commercial vehicles. (8 marks)

Answer :

Product: Product is the article which a manufacturer desires to sell in the open market. It is the first element in the marketing mix. The product mix includes the following variables.

(a) Product line and range,
(b) Style, shape, design, colour, quality and other physical features of a product,
(c) Packaging and labeling of a product,
(d) Branding and trade mark given to the product,
(e) Product innovation, and
(f) Product servicing.

Managing product component involves product planning and development. Here, the decisions are required to be taken regarding product range, branding, packaging, labeling and other features of the product. The product manufactured for market should be as per the needs and expectations of consumers.

Distribution channel (Place): Physical distribution is the delivery of goods at the right time and at the right place to consumers. Physical distribution of product is possible through channels of distribution which are many and varied in character.

Physical distribution (place mix) includes the following variables:

(a) Types of intermediaries available for distribution,
(b) Distribution marketing channels available for distribution, and
(c) Transportation, warehousing and inventory control for making the product available to consumers easily and economically.

For large : Scale distribution, the services of wholesalers, retailers and other marketing intermediaries are required. A marketing manager has to select a channel which is convenient, economical and suitable for the distribution of a specific product. For instance, large numbers of outlets are required for the distribution of products of mass consumption such as soaps and oils. On the other hand, for the marketing of speciality products like refrigerators and TV sets, selective distribution through authorized dealers is quite convenient.

Promotion: Promotion is the persuasive communication about the product offered by the manufacturer to the prospect. Promotion mix includes the following variables:

(a) Advertising and publicity of the product,
(b) Personal selling techniques used,
(c) Sales promotion measures introduced at different levels,
(d) Public relations techniques used for keeping cordial relations with dealers and consumers,
(e) Display of goods for sales promotion.

Promotional activities are necessary for large scale marketing and also for facing market competition effectively. Such activities are varied in nature and are useful for establishing reasonably good rapport with the consumers. Advertising gives information and guidance to consumers. Brand names are made popular through advertising. Along with advertising, personal selling is also useful for motivating the customers to buy a specific product.

Price: Price is one more critical component of marketing mix. It is the valuation of the product mentioned by the seller on the product.

Price mix includes the following variables:

Pricing policies :

(a) Discounts and other concessions offered for capturing market,
(b) Terms of credit sale,
(c) Terms of delivery, and
(d) Pricing strategy selected and used.

Pricing has an important bearing on the competitive position of a product. The marketing manager may use pricing as a tool for achieving the targeted market share or sales volume. Pricing can also be used for capturing market and also for facing market competition effectively. Pricing decisions and policies have direct influence on the sales volume and profits of the firm. Market price of a product also needs periodical review and adjustments. The price charged should be high enough to give adequate profit to the company but low enough to motivate consumers to purchase product. It should also be suitable to face market competition effectively.

2010 - June [5] (b) How has the classification of costs changed from the traditional method in strategic total cost management? (5 marks)

Answer :

Classification of costs has always been into variable, semi-variable, fixed categories. When cost as a strategy is to be implemented it presupposes that there is a time horizon which is longer than a few accounting periods. In such a time span even the so called fixed costs tend to vary e.g., rent, taxes, salaries, etc. So, the total cost management strategy has evolved a new classification namely, bed rock fixed costs e.g., depreciation, patent, amortization; managed costs rent, taxes, salaries and wages, maintenance, travel, advertising, etc. and truly variable costs include materials, royalties, freight, overtime costs, etc. This classification helps arriving at break even points which are more credible and take into consideration the changes in the costs over a period. A single break even is not possible and not acceptable in the total cost management.

Another very important feature of total cost management is that almost all costs are manageable through cost strategy as even period costs tend to vary over time. For instance, rents which are considered period costs as fixed under normal parlance are treated as managed costs in total cost management strategy. This is particularly so, because the quantum of rent variation can be managed through leasing, rent or own strategies, tax planning, etc.

2010 - Dec [3] (a) "In the context of business strategies, the Management Accountant plays the role of a change agent." –Elucidate the statement bringing out the Management Accountant's contribution at each stage of strategy building exercise in an organization. (12 marks)

Answer :

Management accountant in the 21st century finds himself at the cross roads. From the ivory tower of purely accounting, the management accountant has now to confront challenges which are cross functional. He has become a change agent and also a catalyst to the growth of any company. The cross functional status requires the management accountant to be familiar with all the lines of activities, namely marketing, production, human resources, research and development. In short, the management accountant has to equip himself in the following ways to be a strategic cost management accountant:

Needs exposure to multi-disciplines: Functional milieu has changed and water tight compartments do not exist. Team work with peers in different areas is a must.

- **Be the change agent:** Help understand environment and introduce necessary changes within the system to cope up with the fast changing world in the context of the third wave.
- **Help build strategic cost management:** Develop analytical skills for benchmarking exercises, SWOT analysis, activity orientation, target costing, focus on both cost leadership and product differentiation.
- Integrate customer satisfaction into total cost management using value chain analysis.
- This aspect identifies the area of maximum value addition and the need to relate value to customer satisfaction in quantitative terms.
- Be part of the management team: Step outside the ivory tower and mingle with the main stream to introduce total cost management practice. This aspect incorporate use of cost tables, shop floor exercises, interpretation of technical and efficiency improvements in terms of value.
- Especially, in the context of business strategies the role of management accountant as a change agent has been indicated earlier. However, it will be useful to define the role of the management accountant in the entire strategy formulation and implementation exercise. The following table gives a contribution of the management accountant at each stage of strategy building exercise:

Strategy building exercise	Contribution of the management accountant
Validation of vision	Be part of feedback sessions for validation to identify the impact of financial aspect.
Validation of mission	Be part of feedback sessions for validation to identify the impact of financial aspect.
Environmental scan and SWOT analysis	Research, collect and collate information on key environmental factors including statutory regulations and competitive activity.
Strategic change portfolio	Be part of cross functional team to lay down strategic initiatives in a chronological order over the time horizon of the strategy.
Identify critical success factors (CSF) 1. Set targets 2. Prepare annual budgets to dovetail to long range forecasts 3. Identify tools for measurement both financial and non- financial	Is fully involved in all the activities as his role for developing both targets, measures and interpretation of deviations through proper tools like Balanced scorecard, EVA, Strategy maps, etc.
Sustain Kaizen	1. Be part of cross functional teams to identify assumptions and CSFs which need revision. 2. Be part of the cross functional team to identify critical business process which need specific attention for modification and improvement.

2011 - Dec [3] (c) What is meant by Strategic Total Cost Management? Mention the specific tools with which the Management Accountant should associate himself in the implementation of Strategic TCM in an organization. (2.5 + 5 = 7.5 marks)

Answer :

Please refer 2010 - June [5] (b) on page no. 206

2012 - June [4] Answer the following in brief:
What do you understand by the term "Life Cycle Cost"? (5 marks)

Answer:

It focuses on total cost **(Capital cost + revenue cost)** over the products life including design.
CIMA defines life cycle costing as the practice of obtaining over life time, the best use of physical asset at the lowest cost of entity.
"The term **"Life Cycle Cost"** has been defined as follows, "It includes the cost associated with acquiring, using, caring for and disposing of physical asset including the feasibility studies, research, design, development, Production, maintenance, replacement and disposal

as well as support, training and operating cost, generated by the acquisition use, maintenance and replacement of permanent physical assets."

1. Life cycle costing estimates and accumulates costs over a product's entire life cycle.
2. The objective is to determine whether costs incurred at different stages of development, (planning, designing & testing) manufacturing (conversion activities) and marketing (advertising distribution, and designing, and testing) manufacturing (conversion activities) and marketing (advertising distribution, warranty) of the product will be recovered by revenue to be generated by the product over its life cycle.
3. Life cycle costing provides an insight, useful for understanding and managing costs over the life cycle of the product.
4. In particular it helps to evaluate the viability of the product, decides on pricing of the product at different stage of product life cycle and often helps to estimate the value of the product to its user.
5. When used in conjunction with target costing, life cycle costing becomes an important tool for cost management.
6. Life cycle costing estimates and accumulates costs over a product's entire life cycle in order to determine whether the profits earned during the manufacturing phase will cover the costs incurred during the pre-and post manufacturing stages.
7. Identifying the costs incurred during the different stages of product's life cycle provides an insight into understanding and managing the costs incurred throughout its life cycle. In particular, Life cycle costing helps management to understand the cost consequences of developing and making a product and to identify areas in which cost reduction efforts are likely to be most effective.
8. Most accounting system report on a period-by-period basis, and products are not monitored over their life cycles. In contrast product life cycle reporting involves tracing costs and revenue on a product-by-product basis over several calendar periods throughout their life cycle.
9. A Typical pattern of cost commitment and cost incurrence during the three stages of a product's life cycle-the planning and design stage, the manufacturing stage and the service and abandonment stage.
10. Committed or locked in cost that have not been incurred but that will be incurred in the future on the basis of decisions that have already been made. Costs are incurred when resource is used or sacrificed.
11 Costing system record costs-only when they been incurred. It is difficult to significantly alter costs after they have been committed. For example the product design specifications determine a product's material and labour inputs and the production process. At this stage costs become committed and broadly determine the future costs that will be incurred at the manufacturing stage.
12. That approximately 80% of a product's costs are committed during the planning and design stage. At this stage product designers determine the product's design and the production process. In contrast the majority of costs are incurred at the manufacturing stage, but they have already become locked in at the planning and design stage and are difficult to alter.

Cost Management can be most effectively exercised during the planning and design stage and not at the manufacturing stage when the product design and processes have already been determined and costs have been committed.

2012 - Dec [3] (b) In which sector of products market-skimming pricing practice is used? (2 marks)

(c) Your research shows that over 53% of all purchases are made on impulse. You advise your packaging design team that the package must communicate many of the sales tasks. List the sales tasks that packaging must now incorporate. (4 marks)

Answer:

(b) Market-skimming pricing is a strategy whereby prices start high and slowly drop over time. This is a prevalent practice in consumer electronics products.

Answer:

(c) Packaging may be defined as the general group of activities in the planning of a product. These activities concentrate on formulating a design of the package and producing an appropriate and attractive container or wrapper for a product. The tasks of packaging are:

(i) Attract attention;
(ii) Describe the product's features;
(iii) Create consumer confidence; and
(iv) Make a favourable overall impression.

2013 - June [7] (b) What are the methods of fixing 'Transfer Price' for transfer of a product from one profit center to another? Mention one demerit of each method. (5 marks)

Answer:

	Transfer Pricing Method	Demerit
A.	Cost Based Pricing	
(i)	Actual Cost (Full Cost or Variable cost) of Production Or Actual Cost Plus Profit	Inefficiency of transferor borne by receiving centre.
(ii)	Standard Cost	Standards may be unrealistic or out dated creating an unfair price for any of the divisions.
(iii)	Marginal Cost	While fixed costs have to be incurred by transferring division, the receiving division does not pay for it.
B (iv)	Market Based Pricing	Market price may not be available if product is made to the specification of the receiving division. Market price may be fluctuating.
(v)	Negotiated Pricing	If the negotiating range is not mutually beneficial to both the divisions, there is clash of interest and

		management intervention may become necessary. The more powerful division may have its way. Goal congruence may be sacrificed, adversely affecting the overall Company profits.
(vi)	Opportunity Cost Pricing	Since this method sets the minimum price for the selling division and the minimum price for the buying division, clash of interest may arise. The more powerful division may exercise heavier bargaining power. Company's overall interest may be sacrificed or the divisional managers may be demotivated.

2013 - Dec [6] {C} (a) What do you understand by 'Project Life Cycle'?

(3 marks)

Answer :

The project life cycle describes the tasks that must be completed to provide a product or service. Different project life cycles exist for specific products and services. For example, the life cycle followed to build a house is very different from the life cycle followed to develop a software package. The project life cycle consists of four phases like initiation, planning, execution (including monitoring and controlling) and Evaluation & Closure. The Initiation phase begins by defining the scope, purpose, objectives, resources, deliverables, time scales and structure of the project. The next step is to develop a Business Case, including several possible solutions and a cost/benefit analysis for each. A Feasibility Study should then be carried out to ensure that the chosen solution is feasible and has an acceptable level of risk. The next step is to define the Terms of Reference, followed by the appointment of the project team. The final step is to carry out Phase Review before seeking approval to proceed.

2014 - June [6] {C} (a) Differentiate 'Traditional Cost Management' from 'Strategic Cost Management' in the light of

(i) cost analysis way

(ii) cost analysis objective, and

(iii) cost driver concept. (3 marks)

(c) Mention any three objectives of 'transfer pricing'.

(3 marks)

(d) As a CMA how would you apply EOQ in inventory management decisions in a situation of quantity discount offered by vendors?

(2 marks)

Answer:

(a) The difference between Traditional Cost Management and Strategic Cost Management is explained below:

	Traditional Cost Management	**Strategic Cost Management**
Focus	Internal	External
Perspective	Value-added	Value chain
Cost analysis-way	In term of: product, customer, and function. With a strongly internal focus. Value added is a key concept.	In term of the various stages of the overall value chain of which the firm is a part. With a strongly external focus. Valued-added is seen as a dangerously narrow concept.
Cost analysis-objective	Three objective all apply, without regard to the strategic context: Score keeping, attention directing, and problem solving.	Although the three objectives are always present, the design of cost management systems changes dramatically depending on the basic strategic positioning of the firm: either under a cost leadership strategy, or under a product differentiation strategy.
Cost driver concept	A single fundamental cost driver pervades literature- cost is a function of volume. Applied too often only at the overall firm level.	Multiple cost drivers such as: Structural drivers (e.g. scale, scope, experience, technology, complexity) Exceptional drivers (e.g. participative management, total quality management). Each value activity has a set of unique cost drivers.

Answer:

(c) Objectives of Transfer Pricing

1. **Goal congruence:** The prices should be set so that the divisional management desire to maximize divisional earnings is consistent with the objectives of the company as a whole. The transfer prices should not encourage sub-optimal decision-making. The system should be so designed that decisions that improve business unit profits will also improve company profits.

2. **Performance appraisal:** The prices should enable reliable assessments to be made of divisional performance. The prices form part of information, which should:
   (i) Guide decision making.
   (ii) Appraise managerial performance.
   (iii) Evaluate the contribution made by the division to overall company profits.
   (iv) Assess the worth of the division as an economic unit.

   The transfer prices should be designed such that they help in measuring the economic performance.
3. **Divisional autonomy:** The prices should seek to maintain the maximum divisional autonomy so that the benefits of decentralization (motivation, better decision-making, initiatives, etc.) are maintained. The profits of one division should not be dependent on the actions of other divisions.

Answer:

(d) Suppliers will often provide incentives to purchasers to buy in bigger quantities. When quantity discounts are available, the basic **EOQ** formula cannot be used to directly solve for the best order size. However, it must be used on an iterative (trial and error) basis to find the best order size. When quantity discounts were not available, the cost of inventory itself, (purchases), was not relevant and could be ignored. However, because now the order size affects the cost per unit, the total cost of inventory purchases must be taken into account. Without quantity discounts, the total cost of inventory purchased remains the same regardless of order size. In order to solve for the best order size, the following equation must be used.

$$\textbf{TC} = \frac{A}{E}(P) + \frac{E}{2}(S) + C(A) \text{ .... (7)}$$

The **EOQ** formula now has **C(A)**, the total inventory purchase cost, as a cost element. When quantity discounts exists, the cost of inventory becomes relevant in the order size decision. **C** represents the cost of one unit of inventory. The other mathematical symbols have the same meaning as before:

E - represents order size
S - represents carrying cost per unit
TCC - total carrying cost
TPC - total purchasing cost
A - periodic demand for material
P - cost of placing each order

Equation (7) above cannot be used to directly solve for order size **(E)**. The reason is that there are two unknowns: (1) order size and (2) cost per unit of inventory. Order size affects cost per unit and cost per unit affects order size. The trial and error procedure based on equation 7 that must be used is as follows:

Step 1 Prepare a work sheet based on the total cost equation.
Step 2 Compute total cost at each price break, including an order size of one unit.
Step 3 Determine the order size range which minimizes total cost. (In many cases the best order size is a price break quantity.)

2014 - June [7] (a) What is meant by Business Process Re-engineering(BPR)? How can BPR be applied to an organisation? Give an example of BPR application. (2+6+2 = 10 marks)

Answer:

Business Process Re-engineering: is a business management strategy, originally pioneered in the early 1990s, focusing on the analysis and design of workflows and processes within an organization. BPR aimed to help organizations fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors. In the mid-1990s, as many as 60% of the Fortune 500 companies claimed to either have initiated re-engineering efforts, or to have plans to do so.

BPR seeks to help companies radically restructure their organizations by focusing on the ground-up design of their business processes. According to Davenport (1990) a business process is a set of logically related tasks performed to achieve a defined business outcome. Re-engineering emphasized a holistic focus on business objectives and how processes related to them, encouraging full-scale recreation of processes rather than iterative optimization of sub-processes.

An Example of BPR Application

For example, if a bank customer enters into the bank determined to apply for a loan, apply for an ATM card and open a savings account, most probably must visit three different desks in order to be serviced. When BPR is applied to an organization the customer communicates with only one person, called "case manager", for all three inquiries.

The implementation of "One Stop Shopping" as a major customer service innovation, requires the close coordination with a team of staff assigned to a process powered by IT for exchanging information and documents in order to service the customer's request. For instance a customer applying for a loan "triggers" a team of staff assigned to service a loan application. The manager completes an application for a loan in electronic form, which in turn is submitted through the network to the next team member, the credit control director, who examines the credit status of the customer. If the credit status is not satisfactory the rejection of the loan is approved by the credit manager and a rejection form is filled and it is returned to the case manager. The case manager explains to the customer the reason that his application was rejected.

On the other hand, if the credit status of the customer is satisfactory, the application is submitted electronically to the next team member, who calculates interest rates and payment tables. The application is then submitted to the credit manager for approval using a digital signature. The approval of the application along with the payment table is delivered to the customer by the case manager.

Most importantly, while the loan application team was processing the loan application, the case manager "triggered" the account team to open a savings account and the ATM team to supply the customer with an ATM card. The customer leaves the bank having a response for his loan application, a new savings account and an ATM card and all these without having to move around the desks for signatures and documents. All the customer's requests were satisfied at the same time in parallel motion.

How can BPR be applied to an organization

(i) **Empowering people:** Empowerment means giving people the ability to do their work:

the right information, the right tools, the right training, the right environment and the authority they need. Information systems help empower people by providing information, tools and training.

(ii) **Providing Information:** Providing information to help people perform their work is a primary purpose of most information systems although they provide information in many different ways.

(iii) **Providing Tools:** In addition to providing the right information, empowering people means giving them the right tools.

(iv) **Providing Training:** Since information systems are designed to provide the information needed to support desired work practices, they are often used for training and learning. As shown by an expert system and a decision simulator, they sometimes provide new and unique training methods.

(v) **Eliminating Unproductive Uses of Time:** Information systems can reduce the amount of time people waste doing unproductive work.

(vi) **Eliminating Unnecessary Paper:** One common way to improve data processing is to eliminate unnecessary paper. Although paper is familiar and convenient for many purposes, it has major disadvantages. It is bulky, difficult to move from place to place and extremely difficult to use for analysing large amounts of data.

(vii) **Eliminating Unnecessary Variations in the Procedures and Systems:** In many companies, separate departments use different systems and procedures to perform essentially similar repetitive processes, such as paying employees, purchasing supplies and keeping track of inventories.

(viii) **Minimizing the Burden of Record Keeping**, Data Handling and General Office Work. Since processing data is included in most jobs, improving the way people process data is an obvious place to look for information system applications.

2015 - Dec [10] (a) What are the criteria to be maintained by the companies which want to get maximum benefit from 'target costing'? (4 marks)

Answer:

The following criteria are to be maintained by the companies who want to get maximum benefit from 'target costing':

(i) Assembly-oriented industries, as opposed to repetitive-process industries that produce homogeneous products.

(ii) Industries involved heavily with the diversification of the product lines.

(iii) Used technologies of factory automation, including computer-aided design, flexible manufacturing systems, office automation, computer-aided manufacturing etc.

(iv) Have experienced shorter product life cycles where the pay-back for factor) automation typically must be achieved in short-term period (less than eight years).

(v) Must develop the system for reducing costs during the planning, design and development stages of a PLC.

(vi) Able for implementing management methods, such as Just-in-time. Value engineering and Total Quality Control.

2016 - June [5] {C} (d) What are the impact of incremental revenue and incremental cost on a 'special order decision'? (4 marks)

2016 - June [6] (a) Why is Transfer Pricing (TP) necessary in the organization? Show the impact of transfer prices to the 'selling' and 'buying' profit centers. (3 + 4 = 7 marks)

PRACTICAL QUESTIONS

2011 - June [3] (a) M/s Moon light Co. Ltd. fixes the interdivisional transfer prices for its products on the basis of cost plus an estimated return on investment in its divisions. The relevant particulars of the budget for the division 'X' for the year 2010-11 is given below :

Particulars	Amount (₹)
Fixed Assets	6,00,000
Current Assets (other than Cash at Bank)	3,00,000
Cash at Bank	1,00,000
Yearly fixed cost for the division	9,00,000
Variable cost per unit	10
Budgeted volume of production per year (in units)	5,00,000
Desired return on Investment	30%

You are required to determine the transfer price for Division 'X'.

(7 marks)

Answer :

Budgeted volume of production per year = 5,00,000 units
Profit margin per unit = 3,00,000/5,00,000 = ₹ 0.60
Transfer price for Division 'A'

	₹
Variable cost per unit	10.00
Fixed cost per unit ₹ 9,00,000/ ₹ 5,00,000	1.80
Profit margin per unit ₹ 3,00,000/ ₹ 50,000	0.60
Transfer price per unit	12.40

2012 - June [2] (c) Mr. Abraham has recently joined as the Production Manager of Super Food Products Ltd., an Indian subsidiary of a multinational food manufacturer and having an annual turnover of ₹ 500 crores. His first major assignment in the company was to give a new marketing thrust to the several leading known brands of the company whose market share was continuously eroding in the face of growing competition.

To start with, he decided to concentrate on two major brands, Power-pack Instant Milk Powder for family and Tomato Ketchup with an annual turnover of ₹ 80 crores and ₹ 100 crores respectively. These accounted for a market share of 47% and 28% respectively for the financial year 2011-12 as compared to 68% and 45% for the financial year 2008-09. In spite of these slide in the market shares; these brands could retain higher consumer preference and loyalty vis-a-vis other competitive brands.

With a view to having a better appreciation of promotional themes, Mr. Abraham convened a meeting with the advertising agency, Progressive Advertising Ltd. The meeting generated several new ideas on how to push brands up in the consumer recall and preference.

In the light of the above, answer the following questions:

(i) List out the possible reasons why the company has suffered a fall in its market share?

(ii) If you were the Product Manager, what would be your marketing strategy for arresting the trend of slackening sales in the light of the meeting with the advertising agency? (5 + 5 = 10 marks)

Answer:

(i) Possible reasons for fall in the market share are :
- Increased domestic and foreign competition.
- Shifts is consumer tastes.
- Increasing price cutting and better dealer margins by rivals.
- Complacency on the part of the top management, taking leadership position in the market for granted.
- Technological advances through better R&D by competitors.

(ii) As a product manager, I would focus on the following marketing strategy:
- Find new users – convince people who do not consume milk powder and tomato ketchup to start using the same under market penetration strategy.
- New uses – discover and promote new uses for the products.
- Continuous innovation through better R&D.
- Increase distribution effectiveness.
- Maintain price level or reduce the same through cost cutting.

2012 - Dec [6] (a) XYZ Co. Ltd. has two divisions A and B. A sells half of its output on the open market and transfers the rest to Division B. Costs and revenue during 2011 are:

	A	B	Total
	(₹)	(₹)	(₹)
Sales	18,000	50,000	68,000
Cost of production in the division	26,000	22,000	48,000
Profit during the period			20,000

There are no opening or closing stocks.

You are required to find out the profit of each division and profit of the company using transfer prices:

(i) at cost

(ii) at cost plus 20%

(iii) at cost plus 20% but there is over spending in Division A by ₹4,000. (4+3+3 = 10 marks)

Answer:

Statement of Profit of Division A

Particulars	**When transferred at cost (₹)**	**When transferred at costs + 20%**	**When transferred at cost + 20% but there is over spending in division A by ₹ 4,000 (₹)**
Sale (Outside)	18,000	18,000	18,000

Transfer sale to Division B	(26,000 × ½) 13,000	(26,000 × ½ + 20% of 13,000) 15,600	18,000*
	31,000	33,600	36,000
Less: Own Cost	26,000	26,000	30,000
Profit	5,000	7,600	6,000

* Cost of division A + overspending = 26,000 + 4,000 = 30,000
Transfer to division B (½ of 30,000) =15,000
Total transfer cost = Transfer to division B + 20% of 15,000 = 15,000 + ₹ 3,000 = ₹ 18,000

Statement of Profit of Division B

Particulars	**When transferred at cost ₹**	**When transferred at cost + 20%**	**When transferred at cost + 20% but there is over spending in division A by ₹ 4,000 (₹)**
Sale	50,000	50,000	50,000
Transfer sale to Division A	(13,000)	(15,600)	(18,000)
Own Cost	(22,000)	(22,000)	(22,000)
Profit	15,000	12,400	10,000

Statement of Total Profit of Company

Particulars	**When transferred at cost ₹**	**When transferred at cost + 20%**	**When transferred at cost + 20% but there is over spending in division A by ₹ 4,000 (₹)**
Sale	68,000	68,000	68,000
Less: Total Cost	(48,000)	(48,000)	(52,000)
Profit	20,000	20,000	16,000

2013 - Dec [6] {C} (b) The data of running costs per year and resale price of equipment A whose purchase price is ₹ 2,00,000 are as follows:

Year-	I	II	III	IV	V	VI	VII
Running cost (₹ '000)	30	38	46	58	75	90	110
Resale value (₹ '000)	100	50	25	12	8	8	8

(i) What is the optimum period for replacement?

(ii) When equipment A's age is two years old, equipment B which is a new model for the same usage is available. The optimum period for replacement is 4 years with an average cost of ₹ 72,000. Should equipment A be changed with equipment B? If so, in which year it will be replaced? (7 marks)

Answer :

The calculations of average cost per year during the life of the Equipment A:

Year	Running Cost (₹)	Cumulative Running Cost	Resale Price	Cumulative Dep. Cost	Cumulative Total Cost	Average Cost Per Year
1	30,000	30,000	1,00,000	1,00,000	1,30,000	1,30,000
2	38,000	68,000	50,000	1,50,000	2,18,000	1,09,000
3	46,000	1,14,000	25,000	1,75,000	2,89,000	96,333
4	58,000	1,72,000	12,000	1,88,000	3,60,000	90,000
5	72,000	2,44,000	8,000	1,92,000	4,36,000	87,200
6	90,000	3,34,000	8,000	1,92,000	5,26,000	87,667
7	1,10,000	4,44,000	8,000	1,92,000	6,36,000	90,857

(i) As average cost per year of ₹ 87,200 is minimum in 5th year so Equipment A should be replaced at the end of the 5th year.

(ii) Given, the optimum period for replacement of Equipment B is 4 years with an average cost of ₹ 72,000. As minimum average cost of B is lower than minimum average cost of Equipment A. So A should be replaced by B.

As, Equipment A is two years old, so total cost per year of A from 3rd year is as follows:

Year of Service s	Total Cost per year (₹)
3	2,89,000 - 2,18,000 = 71,000
4	3,60,000 - 2,89,000 = 71,000
5	4,36,000 - 3,60,000 = 76,000
6	5,26,000 - 4,36,000 = 90,000
7	6,36,000 - 5,26,000 = 1,10,000

As the total cost per year of A is higher in 5th year than the minimum average cost of Equipment B (i.e. ₹ 72,000) so Equipment A should be replaced at the end of the 4th year.

2013 - Dec [8] (c) Two similar products A and B, manufactured by a company for a production period have the following data:

Particulars	Product A	Product B
Selling price (₹/unit)	50	70
Variable cost (₹/unit)	30	40
Labour hours per unit	2	6

Total fixed costs that have to be incurred irrespective of the type of product amounts to ₹ 1,80,000. Besides, there are specific fixed costs of ₹ 60,000 to be incurred only if A is produced and ₹ 72,000 to be incurred only if B is produced. Assume no inventory. At present, 7,500 units of A and 7,500 units of B are sold.

Required:

(i) What is the current Break-Even Point (BEP)?

(ii) What is the minimum number of units to achieve BEP?

(iii) If there are only 10,000 labour hours possible in production period, what would be the optimum product-mix? (6 marks)

Answer :

(i) Current BEP (both A and B produced):
Total Fixed Cost = 60,000 + 72,000 + 1,80,000 = ₹ 3,12,000
Contribution of A = 20, B = 30, Average = 25 (equal no. of units A and B)
BEP = 3,12,000/25 = 12,480 units (i.e., 6,240 units of A and 6,240 units of B)

(ii) If only A is produced, BEP (60,000 + 1,80,000)/20 = 12,000 units
If only B is produced, BEP (72,000 + 1,80,000)/30 = 8,400 units
Minimum number of units for BEP = 8,400 units of B

(iii) Contribution per labour hour A: 20/2 = 10 and for B = 30/6 = 5
With given 10,000 labour hours calculation of optimum product mix is not possible as with 10,000 labour hours one can produce only 10,000/10 = 1,000 units of A & 10,000/5 = 2,000 units of B which are much lower than their respective BEPs.
(A produced 1,000 units and B produced 2,000 units which are below the BEP.)

2014 - June [7] (b) A manufacturing company currently operating at 80% capacity has received an export order from Middle East, which will utilise 40% of the capacity of the factory. The order has to be either taken in full and executed at 10% below the current domestic prices or rejected totally.

The current sales or cost data are given below:

Items	₹
Sales	16.00 lakhs
Direct Material	5.80 lakhs
Direct Labour	2.40 lakhs
Variable Overheads	0.60 lakhs
Fixed Overheads	5.20 lakhs

The following alternatives are available to the management:

(i) Continue with domestic sales and reject the export order.

(ii) Accept the export order and allow the domestic market to starve to the extent of excess of demand.

(iii) Increase capacity so as to accept the export order and maintain the domestic demand by–

(a) purchasing additional plant and increasing 10% capacity and thereby increasing fixed overheads by ₹ 65,000, and

(b) working overtime at one and half time the normal rate to meet balance of the required capacity.

You are required to evaluate each of the above alternatives and suggest the best one.
(8+2 = 10 marks)

Answer:

Statement showing computation of profit at different alternatives:

(In Lakhs)

	Particulars	**I Present Sales 80%**	**II 40%- Foreign 60%- Domestic**	**III 40%- Foreign 80%-Domestic**
1	Sales (₹)	16.00	19.20 (7.20+12.00)	23.20 (7.20+16.00)
2	Variable Cost (₹)			
	Direct Material (₹)	5.80	7.25	8.70
	Direct Labour (₹)	2.40	3.00	3.60
	Variable Overheads(₹)	0.60	0.75	0.90
	Overtime Premium (₹)	-	-	0.15
		8.80	11.00	13.35
3	Contribution (₹)	7.20	8.20	9.85
4	Fixed Cost (₹)	5.20	5.20	5.85 (5.20+0.65)
5	Profit (₹)	2.00	3.00	4.00

From the above computation, it was found that the profit is more at the III alternative i.e. accepting the foreign order fully and maintaining the present domestic sales, it is the best alternative to be suggested.

2014 - Dec [5] {C} Domestic political trouble in the country of an overseas supplier is causing concern in your company because it is not known when further supplies of raw material 'x' will be received. The current stock held of this particular raw material is 17,000 kgs., which costs ₹ 1,36,000.

Based on raw material 'x', your company makes five different products and expected demand for each of these, for the next three months, is given below together with relevant information:

Product Code	Kilogram of raw material 'x'/units of finished product (k.g.)	Direct labour hours/unit of finished product (Hrs.)	Selling price/unit (₹)	Expected demand over three months (units)
701	0.7	1.0	26	8,000
702	0.5	0.8	28	7,200
821	1.4	1.5	34	9,000
822	1.3	1.1	38	12,000
937	1.5	1.4	40	10,000

The direct wages rate/hour is ₹ 5 and production overhead is based on direct wages cost. The variable overhead absorption rate being 40% and the fixed overhead absorption rate being 60%, Variable selling costs, including sales commission are 15% of selling price. Budget fixed selling and administration costs are ₹ 3,00,000 per annum. Assume that the fixed production overhead incurred will equal the absorbed figure.

You are required to:

(i) Show what quantity of the raw material on hand ought to be allocated to which products in order to maximize profits for the forthcoming three months.

(ii) Present a brief statement showing contribution and profit for the forthcoming three months, if your suggestion in (i) is adopted.

(10 + 10 = 20 marks)

Answer:

Statement showing computation of contribution per kilogram of material and determination of priority for profitability:

	701	702	821	822	937
	₹	₹	₹	₹	₹
Selling Price	26	28	34	38	40
Variable Cost					
Direct Material	5.6	4	11.2	10.4	12
Direct labour	5	4	7.5	5.5	7
Production Overheads	2	1.6	3	2.2	2.8
Selling Expenses	3.9	4.2	5.1	5.7	6
Total Variable Cost	16.5	13.8	26.8	23.8	27.8
Contribution	9.5	14.2	7.2	14.2	12.2
Contribution per kilogram of material	13.57	28.4	5.14	10.9	8.13
Priority	2	1	5	3	4

(ii) Statement showing optimum mix under given conditions and computation of profit at that mix:

	701	702	822	Total
No. of Units	8,000	7,200	6,000	
Contribution per Unit (₹)	9.5	14.2	14.2	
Total Contribution (₹)	76,000	1,02,240	85,200	2,63,440
Fixed Cost (₹)				1,36,080
Profit (₹)				1,27,360

Working Notes:

Computation of material apportion on the basis of priority

	(Kg.)
Available material	17,000.00
Less: used for 702 (7,200 x 0.5)	3,600.00
	13,400.00
701 (8,000 x 0.7)	5,600.00
	7,800.00

Therefore no. of units of 822 to be produced from remaining material (7,800/1.3) = 6,000 Units

Fixed Costs:

	₹
Selling and adm. Overheads [(3,00,000/12) × 3]	75,000
Factory overheads [(8,000 × 5 × 60%) + (7,200 × 4 × 60%) + (6,000 × 5.5 × 60%)]	61,080
	1,36,080

2014 - Dec [6] (a) Singular Products Co. Ltd. manufactured and sold in a year 15,000 units of a particular product fetching a sales value of ₹ 15 Lakhs. After charging direct material 30% on sales value, direct labour 20% on sales value, variable overheads ₹ 10 per unit, the company earned ₹ 16.67 per unit during the year.

The existing equipment can produce a maximum of 20,000 units per annum. In case, the demand exceeds the maximum output, new equipment will be required which will cost ₹ 10 Lakhs and it will have a life span of 10 years, with no residual value.

A prospective customer is willing to place an order on the company for 10,000 units per year regularly at 90% of the present selling price, which will be, if accepted, over and above the existing market for 15,000 units.

Irrespective of the fact whether or not the new order materializes, the cost increase with immediate effect is:

(i) 10% in the Direct Materials.
(ii) 25% in the Direct Labour.
(iii) ₹ 50,000 in Fixed overheads per year.

If the order of additional 10,000 units is accepted, the Fixed overhead will increase by another ₹ 50,000 by way of increased administration expenses.

You are required to recommend whether the company should accept the new business at the

stipulated price or decline the new order and make a concerted sales drive to sell the present unused capacity at the present selling price? The sales drive will cost ₹ 60,000 per year.
Ignore the financial charges on the cost of the equipment and assume there are no opening/closing stock inventories. Variable cost will increase in direct proportion to the output. (10 marks)

Answer:

Present Selling Price = ₹ 15,00,000/15,000 = ₹100 per unit

Present Cost Structure:

	₹
Sales	15,00,000
Direct materials (30% of sales value)	4,50,000
Direct labour (20% of sales value)	3,00,000
Variable overheads (₹ 10 per unit) 10 × 15,000	1,50,000
Total	**9,00,000**
Contribution	6,00,000
Profit (₹ 16.67 per unit)	2,50,000
Fixed Overheads (Balancing figure)	3,50,000

Comparative statement of the proposals (Revised cost basis)

Capacity	**Present Capacity**	**Maximum Capacity**	**Present plus 10,000 units**
Units	15,000	20,000	25,000
Sales Value	15,00,000	20,00,000	15,00,000
			9,00,000
			24,00,000
Direct Materials (33% on sales value)[10/15×4,95,000]	4,95,000	6,60,000	4,95,000
			3,30,000
Direct Labor(25% on sales value)[10/15 × 3,75,000]	3,75,000	5,00,000	3,75,000
			2,50,000
Variable overheads (₹10 per unit)	1,50,000	2,00,000	2,50,000
Fixed overheads	3,50,000	3,50,000	3,50,000
	50,000	50,000	50,000
Sales drive	-	60,000	-
Depreciation on new equipment	-	-	1,00,000

Total Costs	14,20,000	18,20,000	22,50,000
Profit	80,000	1,80,000	1,50,000

It will be advisable for the company not to accept the offer, instead it should make a concerted sales drive to sell the present unused capacity at the present selling price and sell 20,000 units since this option yields a higher profit.

2015 - Dec [6] {C} Bharti Airtel continues to cut discounts and free offers on call rates, besides looking at raising base call rates in the coming days. "The company's consistent strategy is to cut discounted minutes on almost every opportunity, as we continue to focus on raising net realization. The company will defer touching the headline tariffs (rates) but at the same point there may be some opportunity to raise these", said Gopal Vittal, its MD and CEO (India and South Asia). Bharti, the country's largest telecom operator, with 205 million subscribers in India, has been raising rates for both voice and data services in wireless and wire line services under certain schemes by fibers. Vittal said the current levels of voice pricing were not sustainable with the raising costs of inputs-diesel, network, spectrum charges, fiber and roll-out expenses. "If I look at a secular basis over the next couple of years, there is no other option but for voice realization to go up", he added. Voice realization per minute has improved to 37p as compared to 35p four quarters earlier. Other telecom operators had also reduced discounts over the past three quarters, keeping the base rates unchanged. Reliance Communication, however, raised headline tariffs for prepaid customers by 20%.

As Management Accountant, working at Bharti Airtel, you have to develop suitable pricing strategies for the services provided by the company.

(i) What steps you are to follow to develop a suitable pricing strategy of Bharti Airtel.?

(ii) State the main approaches you will adopt for setting a basic price for the company's products or services? (5+5=10 marks)

Answer:

(i) Pricing strategies for products or services encompass following three main ways to improve profits:

The business owner can:

(a) cut cost of the product or services;

(b) initiate sell more of the product or services; and

(c) find more profit with a better pricing strategy.

One strategy does not fit all, so adopting a pricing strategy is a learning curve when studying the needs and behaviour of customers and clients. To develop a pricing strategy the first and foremost step of the business owner is to gather required data and information in the following way:

- ❖ Pricing strategies and prices of the competitor's product or services;
- ❖ Customer perception of products and services;
- ❖ Customer benefits of product and services;
- ❖ Cost of procuring, producing and generating the products or services (i.e., variable costs);
- ❖ Fixed business costs (i.e., overhead costs)

The goal is to understand your business model and operating costs as well as the current pricing strategies and price points in the marketplace.

(ii) There are three main approaches or strategies a business takes to setting price of a products or services:

(a) **Cost-based pricing:** Price is determined by adding a profit elements on top of the cost of making the product or services. This involves setting a price by adding a fixed amount or percentage of the cost of making or buying the products or services. After all, the customers are not too bothered what does it cost to make the product, they are mainly interested in what value the products or services provide them.

(b) **Customer-based pricing:** Where prices are determined by what a firm believes that customers will be prepared to pay.

The following are the customer-based pricing:

Penetration pricing: It is usually to increase the market share of a product or service.

Price skimming: It involves setting a high price before other competitors come into the market. Such products or services are often bought by "earlier adopters" who are prepared to pay higher price to have the latest or best product or service in the market.

Loss leaders: A loss leader is a product or service priced below cost-price in order to attract customers into a shop or online store. The use of loss leader pricing is a method of sales promotion.

(c) **Competitor-based pricing:** Where competitors' prices are the main influence on the price set. In the strong competition market, customers are faced with a wide choice of who to buy from. They may buy from the cheapest provider or perhaps from the one which offers the best customer service. But customers will certainly do the market study and be mindful of what is a reasonable or normal price of the product or service in the accessible market.

2016 - June [5] {C} (a) Company A can manufacture 1,000 units bicycles in a month for a fixed cost of ₹ 3,00,000. The variable cost is ₹ 500 per unit. Its current demand is 600 units which it sales at ₹ 1,000 per unit. It is approached by Company B for an order of 200 units of ₹ 700 per unit. Should the Company A accept the order? Give your views as a CMA.

(5 marks)

(b) The public sector Bank of India (BOI), which targets to take its business to about ₹ 12 lakhs crore in next five years, mulls to implement Business Process Re-engineering (BPR) initiates to streamline its growing business. Seven consultants, including Ernst & Young, Boston Consulting Group (BCG) and McKinsey, have expressed interest to take up the job of evaluation and restructuring the organizational set-up by using 3Rs Model of BPR. What are the actions and resources to be considered for 3Rs Model of BPR for expecting the results to BOI?

(6 marks)

2016 - June [6] (b) The income statement of Ashok Gears Ltd. is summarized as below:

Net Revenue..	₹ 80,00,000

Less: Expenses (including ₹ 40,00,000 of Fixed Cost)..........	₹ 88,00,000
Net Loss..	₹ 8,00,000

The manager believes that an increase of ₹ 20,00,000 as fixed expenditure in advertising outlays will increase the sales substantially. His plan was approved by the Board.
You are required to calculate:

(i) At what sales volume will the company have Break Even?
(ii) What sales volume will result in a Net Profit of ₹ 4,00,000?

(4 + 4 = 8 marks)

Repeatedly Asked Questions

No.	Question	Frequency
1	Write Short Notes on Kaizen Costing 11 - Dec [4] (b), 14 - Dec [8] (d), 15 - June [4] (a) (ii)	3 Times

Table Showing Marks of Compulsory Questions

Year	11 D	12 J	12 D	13 J	13 D	14 J	14 D	15 J	15 D	16 J
Descriptive					3	8				4
Practical					7		20		10	11
Total					10	8	20		10	15