FINAL EXAMINATION

GROUP III

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2015

Paper-15: BUSINESS STRATEGY AND STRATEGIC COST MANAGEMENT

Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks

SECTION A (50 marks)

(Business Strategy)

Questions No. 1 ***is compulsory and carries 20 marks.***
Answer* any two *questions from the rest in this section, each carrying 15 marks.

1. A significant example of Strategic Choices in Indian Corporate in recent times is the growth for Starbucks and the Tata group. Starbucks has opted to enter into a strategic alliance with the Tata Group, as it attempts to establish a position in the Indian market. Tata Starbucks Limited is the 50-50 joint venture between Tata Global Beverages Limited and the Starbucks Coffee Company. The Company celebrated the opening of the 50th Starbuck store in India on 8th July, 2014. The company launched its first store at Phoenix Market City, Velachery, Chennai.

The Company will continue to open more and more stores and grow thoughtfully in the market with a commitment to offer the unique Starbucks experience, unrivalled service, hand-crafted beverages, extensive food offerings and with a distinct fragrance and aroma of Coffee to Coffee lovers across the country. With 50 stores now operational across 5 cities, Tata Starbucks Limited continues to grow and nurture its brand in India-in line with its promise to build a strong connect with the Indian consumers.

Perhaps somewhat unusually, the stores will be co-branded as "Starbucks Coffee: A Tata Alliance." Long known as a nation of tea drinkers-despite a rich tradition of Coffee in the south-India has embraced Coffee house culture with a vengeance.

"We are going to move as fast as possible in opening as many stores as we can so long as we are successful and so long as we are embraced by the Indian consumers" said John Culver, President of Starbucks China and Asia Pacific. The need to address and' respect potential cultural issues seems to have been a key factor in deciding to use the joint ventures route rather than set up a separate Starbucks subsidiary in India.

"We never considered 51%," Culver said, "When we looked at the opportunity to enter India, understanding the complexities of the market and the uniqueness that is India, we wanted to find a local business partner."

(i) What is Strategic Planning? State the Strategic Planning Process. 3+5

(ii) What approaches to Strategic Planning are advised to Tata Starbucks Limited for the

Strategic Choice phases? 5

(iii) State the important key components of Strategic Planning Process for decision making in "Starbucks Coffee: A Tata Alliance.". 7

Answer:

1.

(i) Strategic Planning refers to the development of strategic plans that involve taking information from the environment and deciding upon an organizational mission and upon objectives, strategies and a portfolio plan. It involves establishing the overall identity of the company, deciding on the strategic alternatives the company will follow and choosing the tactics or weapons which the company will emphasize.

Simply put, Strategic Planning involves identifying the long-term objectives and determining the action plans for the company. The objectives and action plans should be established only after careful assessment and prediction of the future states of relevant environmental factors.

Strategic Planning Process: involves the identification of alternatives, the collection of information, evaluation and selection of alternatives and finally the strategic decisions themselves. Strategic Planning Process can best be understood in terms of stages:

Stage-1: Defining the mission.

Stage-2: Assessing organizational resources

Stage-3: Evaluating environmental risks and opportunities

Stage-4: Establishing long-term objectives

Stage-5: Formulating strategy

Stage-6: Establishing annual objectives

Stage-7: Establishing operational plans

Stage-8: Implementing the plans

Stage-9: Implementing, Monitoring and Adapting.

(ii) Approach to Strategic Planning Process for Tata Starbucks Limited.,

The following are the basic approaches to Strategic Planning process for Tata Starbucks Limited:

- Keep the engaging commitment.
- Set Long-term Strategic Objectives for improved performance of the organization,
- Keep on generating Strategic Options
- Keep evaluating and decide on strategies
- There is a need to track monitoring implementation of the strategies against the long-term objectives.

(iii) Key components of Strategic Planning Process are :

- ✓ The Strategic intent/objective to improve the long-term performance of the Starbucks Coffee: A Tata Alliance.
- ✓ The Strategic issues distilled from the analysis of key factors relevant to the overall

situation of the organization in its environment and

- ✓ The Strategic options generated by the planning

The Strategic choice space is in the area of overlap among these three components. Consideration of the other overlaps between pairs of components may stimulate discussion and possible other thoughts to clarify what are the really important elements in any decision about strategy.

Between intent and issue analysis there may be no feasible options apparent. Before giving up it may be worth looking to see if the alignment between factors raised in the analysis which seem relevant to objectives have been misread, or are alternative forms of issues already aligned in the central strategic choice space.

Between intent and options it may be possible to identify early on that some options are just not feasible.

There will of course be options thrown up that seem feasible, and to fit the issues raised to some extent, and yet do not align well with the objectives. They may be overly risky, or not align with the code of corporate conduct of the organization,

However, it is only in the space created by all three component circles overlapping, that we find any logical candidate strategic choice for inclusion in the final corporate strategy.

Honest and evidence based exploration of this space enables a reasonable and possible set of strategies to emerge as if by magic. The 'magic' is that which comes with of systematic hard work, and honesty in facing up to the really big challenges or strategic elephants facing the organization, in its pursuit of longer term sustainable performance.

When managerial ego becomes involved, or a deep rooted organizational culture is at play, it may be very difficult to follow the logic as presented.

It will be tempting to argue for a change in strategic intent in order to get in a favored strategic option.

A suggested but infeasible strategic choice which seems very attractive might have influential supporters, so the evidence regarding its feasibility needs to be sound and fully available to the planning team may need to be carefully argued with clear evidence in support. Choosing what not to do, is as important to agree and record as part of the planning process, as the finally agreed strategic choices.

2. (a) (i) Quite often, one of the biggest barriers to success in making the transition to strategic leadership is a lack of insight into the roles that leaders need to assume at the senior strategic level. State all the different roles they will often be involved in situations related to more than one role at any given time. 9

(ii) It has been known for many years that returns from diversification are often poor. Why do managers still persist with it as a strategy? 6

2. (b) (i) "Many organizations in order to achieve quick growth use strategies such as mergers and acquisitions."—Justify. 5

(ii) Discuss the various types of mergers. 10

2. (c) (i) Today leaders of multi-business corporations are learning to identify the maximum strategic- opportunity set-those opportunities that can let companies take the fullest advantage of their capabilities and their potential to pursue new strategies. But to exploit those opportunities, you need to explain managers what we call complex strategic integration (CSI). What do you mean by CSI? 4

(ii) HMT lost market share to Titan in the watch market in India. For analyzing various factors which influenced HMT and Titan actions, one can get insight into competitors or competition through different models of competition. What are the different models of competition? 6

(iii) The greatest challenge for ensuring a successful business strategy has traditionally been within its "execution" rather than "planning". The reason is simple: unexpected challenges always and shall constantly arise. How organizations prevent "Strategic Drift"? 5

Answer:

2. (a) i

Quite often, one of the biggest barriers to success in making the transition to strategic leadership is a lack of insight into the rotes that leaders need to assume at the senior strategic level. Taxonomy is needed that defines and helps to clarify the nature of these roles and the transition leaders must do well to perform in these roles. This, in turn, will help better prepare leaders to be successful and enable them to provide a frame-work for their development and their deployment.

The following are the different roles to be played by Strategic Leadership:

i. <u>Navigator:</u> They understand why things happen and identify possible courses of action to affect events.
   They very well know which factors really matter in the overall scheme of things.

ii. <u>Strategist:</u> Strategists make decisions that drive the organization towards its vision.

iii. <u>Entrepreneur:</u> identifies and exploits opportunities for new products, services and markets.

iv. <u>Mobilizer</u>: Proactively builds and aligns stakeholders and helps in getting things done quickly and achieving complex objectives.

v. <u>Talent Advocate</u>: attracts, develops and retains talent to ensure that people with the right skills and motivations meet the business needs in the right place at the right time.

vi. <u>Captivator</u>: builds passion and commitment towards a common goal. They move people from compliance to commitment.

vii. <u>Global Thinker</u>: Integrates information from all sources to develop a well informed, diverse perspective that can be used to optimize organizational performance.

viii. <u>Change Driver</u>: creates an environment that embraces change;

ix. <u>Enterprise Guardian</u>: ensures shareholder value through courageous decision-making that supports enterpriser unit-wide interests.

<u>**Alternative Answer:**</u>

Role1: NAVIGATOR — Clearly and quickly works through the complexity of key issues, problems and opportunities to affect actions (e.g., leverage opportunities and resolve issues). Navigators analyze large amounts of sometimes conflicting information. They understand why things happen and identify possible courses of action to affect events. They know which factors really matter in the overall scheme of things.

Role 2: STRATEGIST— Develops a long-range course of action or set of goals to align with the organization's vision. Strategists focus on creating a plan for the future. Part of this plan might involve capitalizing on current opportunities and future trends (Entrepreneur) and understanding complex information related to future events (Navigator). Strategists make decisions that drive the organization toward its vision.

Role 3: ENTREPRENEUR—Identifies and exploits opportunities for new products, services, and markets. Entrepreneurs are always alert for creative, novel ideas. They might generate the ideas themselves or take existing opportunities or proposals down a new path. Entrepreneurs are able to look at events from a unique perspective and develop ideas that have never been thought of.

Role 4: MOBILIZER—Proactively builds and aligns stakeholders, capabilities, and resources for getting things done quickly and achieving complex objectives. Mobilizes gain the support and resources they need to accomplish goals.

Role 5: TALENT ADVOCATE—Attracts, develops, and retains talent to ensure that people with the right skills and motivations to meet business needs are in the right place at the right time. Talent Advocates ensure that the organization has people with potential to meet present and future organizational needs. Talent Advocates are less concerned with filling specific positions than with attracting and retaining talented individuals.

Role 6: CAPTIVATOR—Builds passion and commitment toward a common goal. Captivators build upon an established foundation of trust to instil people with feelings of excitement and belonging. Captivators transfer the energy of their message in such a compelling way that people take ownership of the strategy or vision and are empowered to carry it out.

Role 7: GLOBAL THINKER—Integrates information from all sources to develop a well informed, diverse perspective that can be used to optimize organizational performance. Global Thinkers understand and accept international and cultural differences and behave in a way that accommodates people's varying perspectives. They also discern differences in individual styles and adapt their approaches accordingly.

Role 8: CHANGE DRIVER—Creates an environment that embraces change; makes change happen even if the change is radical— and helps others to accept new ideas. Change Drivers focus on continuous improvement. Always challenging the status quo and breaking paradigms, they identify ideas for change and become the force driving the change home.

Role 9: ENTERPRISE GUARDIAN—Ensures shareholder value through courageous decision-making that supports enterpriser unit-wide interests. Enterprise Guardians rise above the parochial nature of the job and make decisions that are good for the shareholder, even if the decisions cause pain to individuals or to the organization.

2. (a) ii

The statement made is true. It is a fact that the returns from diversification are often poor, yet many managers seem to still persist with it. In diversification, an enterprise takes up new products or business which may be related or unrelated to its existing business.

Diversification, in particular, involves a high degree of risk, as it amounts to manufacturing new products or entering into new markets, unfamiliar to the organization. One simple answer comes from the innate tendency of some entrepreneurs and entrepreneurial managers, to seize opportunities as they arise, in the belief that they can overcome the resulting challenges and hence firmly believe in diversifying.

If every manager were to eschew diversification because the odds were against its succeeding, then many profitable openings would remain unexplored. Society and many companies would arguably be poorer if managers do not go in for diversification. The proper function of the manager, one might argue, is to take (properly assessed) risks rather than to avoid them. 'Betting the firm' on a diversification is not necessarily a sound strategy but a trial and error approach. This approach may have something to commend it, if the errors are affordable. One final point is that the failure rate of diversification is not infact as dreadful as a Porter made it out to be. Most major organizational initiatives carry a failure rate of around 70%. The success rate for diversification is pretty well at par. It is better than the success rates for new products, of which 9 out of 10 fail, according to commonly cited marketing folklore. It is also important to understand what it takes to manage a certain growth rate. Depending on where the existing business is in terms of the industry life cycle stage, a firm may need to get into other businesses for sustained future returns, as in case of companies in the tobacco business. Further, if the products are not doing too well in the traditional lines, managers should explore diversification. Diversification should also be resorted to in cases where the organization enjoy considerable resource strength and would like to expand its operation by looking at new businesses.

To conclude, we can say that diversification is a high risk strategy. Yet we should go for it, in tune with the adage "No risk, no gain."

2. (b) i

Many organizations in order to achieve quick growth try to either expand or diversify. They use strategies such as mergers and acquisitions for this purpose. This also helps them in deploying surplus funds.

<u>Merger and Acquisition Strategy:</u> Merger and acquisition in simple words are defined as a process of combining two or more organizations together. There is a thin line of difference between the two terms but the impact of combination is completely different in both the cases.

Some organizations prefer to grow through mergers. Merger is considered to be a process when two or more organizations join together to expand their business operations. In such a case the deal gets finalized on friendly terms. Owners of pre-merged entities have right over the profits of new entity. In a merger two organizations combine to increase their strength and financial gains.

When one organization takes over the other organization and controls all its business operations, it is known as <u>acquisition</u>. In the process of acquisition, one financially strong organization overpowers the weaker one. Acquisitions often happen during recession in economy or during declining profit margins. In this process, one that is financially stronger and bigger establishes it power. The combined operations then run under the name of the powerful entity. A deal in case of an acquisition is often done in an unfriendly manner, it is more or less a forced association where the powerful organization takes over a weaker entity.

2. (b) ii

Types of Mergers

There are three types of Merger: -

1. Horizontal Merger,
2. Vertical Merger and
3. Conglomerate Merger

<u>Horizontal Merger:</u> Horizontal mergers are combinations of firms engaged in the same industry. It is a merger with a direct competitor. The principal objective behind this type of mergers is to achieve economies of scale in the production process by shedding duplication of installations

and functions, widening the line of products, decrease in working capital and fixed assets investment, getting rid of competition and so on. For example, formation of Brook Bond Lipton India Ltd. through the merger of Lipton India and Brook Bond.

Vertical Merger: It is a merger of two organizations that are operating in the same industry but at different stages of production or distribution system. This often leads to increased synergies with the merging firms. If an organization takes over its supplier/producers of raw material, then it leads to backward integration. On the other hand, forward integration happens when an organization decides to take over its buyer organizations or distribution channels. Vertical merger results in operating and financial economies. Vertical mergers help to create an advantageous position by restricting the supply of inputs or by providing them at a higher cost to other players.

Conglomerate Merger: Conglomerate mergers are the combination of organizations that are unrelated to each other. There are no linkages with respect to customer groups, customer functions and technologies being used. There are no important common factors between the organizations in production, marketing, research and development and technology. In practice, however, there is some degree of overlap in one or more of these factors.

Conglomerate mergers have been sub-divided into:

- Financial Conglomerates
- Managerial Conglomerates
- Concentric Companies

2. (c) i

Complex Strategic Integration (CSI) is the gradual combination and transformation of independent components of business organizations into cohesive and synergistic entities. CSI is an important element in the process of improving organizational performance because it facilitates the continuous alignment of business strategies within the ever changing business environment.

There are two categories of CSI. They are:

i. Internal Integration- involves the streamlining the internal operations of an organization.

ii. External Integration: involves streamlining the functional activities that affect external stake-holders.

2. (c) ii

HMT has lost market share to Titan in the watch market in India. For analyzing various factors which influenced HMT and Titan actions, one can get insight into competitors or competition through different models of competition.

The different models of Competition are:

i. The Economic Model: markets begin as
monopolies (Single seller with no close substitute product),
move towards Oligopoly (few sellers),
then to monopolistic competition (large number of sellers)
and ultimately towards Pure or Perfect Competition (Very large number of sellers and buyers).

ii. The Life Model: This is about the Product Life Cycle (PLC) approach analyses competitive intensities during the different phases of life cycles of a product.

iii. The War Model: of competition is based on the close parallel between the military strategies for war and the different marketing strategies. Many marketing strategists have found close similarities between the two.

2 (c) iii

The greatest challenge for ensuring a successful business strategy has traditionally been within its "execution" rather than "planning". The reason is simple: unexpected challenges always and shall constantly arise. An Organization can prevent 'Strategic Drift' by:

i. Starting with creating a culture that is not only openly tolerant of feed-back (both positive and negative).

ii. Making sure that the organization can embrace change when necessary and by not hesitating to question it when it seems it is necessary.

iii. Clarify its leadership responsibilities and execute a formal decision-making model.

iv. Senior executives who align their individual ROI with the long-term success of the organization will be able to quickly identify the nature of the incoming challenge as well as create contingencies to combat it when and if it occurs.

v. The best way to combat Strategic Drift would be to have a Grand Strategy.

Section B (50 marks)
(Strategic Cost Management)

Question No. 3 which is compulsory and carrying 20 marks.

Answer any two questions from the rest in this section, each carrying 15 marks.

3. (i) What is the "Simplex Method"? State its advantage over the Graphical method. **1+4**

(ii) Solve the following LPP by using Simplex Method. (Please note that no credit shall be given, if solved by any other method).

Maximize $Z = 2x_1 + 5x_2$

Subject to $x_1 + 4x_2 \le 24$

$3x_1 + x_2 \le 21$

$x_1 + x_2 \le 9$

$x_1, x_2 \ge 0$ **15**

Answer:

3. (i)

The Simplex method is a computational procedure-an algorithm-for solving Linear Programming Problems. It is an iterative optimizing technique. In the Simplex process, we must first find an initial basic solution (extreme point). We then proceed to an adjacent extreme point. We continue moving from point to point until we reach an optimal solution.

Advantage of Simplex Method over the Graphical solution;

Algebraic method and Graphical method can only be used when there are only less than 2 variables in an LPP. Further Algebra will fail, if there are inequalities. In case the no. of variables exceeds 2, it will not be possible to solve the problem by Algebra/Graphically. In that case, we have to resort to the Simplex method only.

Simplex method is highly efficient and versatile as also amenable to further mathematical treatment and offers interesting economic interpretations. Thus it is possible to solve conveniently linear programming problem graphically, as long as the number of variables is not more than two. Further, the Simplex method is popular, due to its ability to easily program the algorithm on a computer.

Simplex methods use the concept of slack variables and two theorems-The Extreme Point Theorem and the Basis Theorem. In Simplex, we move from the initial basic solution to a better solution and proceed for a further better solution and so on, till we reach the optimum solution. As the Simplex method is quite tedious and highly computational, one has to keep his head cool while solving a LPP by Simplex method.

3. (ii)

By introducing slack variables S_1, S_2 and S_3, the problem becomes:

Maximize $Z = 2x_1+5x_2+0S_1+0S_2+0S_3$

Subject to

$x_1+4x_2+S_1+0S_2+0S_3 =24$

$3x_1+x_2+ 0S_1+S_2+ 0S_3 =21$

$x_1+x_2+0S_1+0S_2+S_3 =9$

$x_1, x_2, S_1, S_2, S_3 \geq 0$

The simplex tables in this case are:

FR(Fixed ratio Program		Profit Unit	Quantity	2 x_1	5 x_2	0 S_1	0 S_2	0 S_3	RR
	S_1	0	24	1	4	1	0	0	6
¼	S_2	0	21	3	1	0	1	0	21
¼	S_3	0	9	1	1	0	0	1	9
			NER(Net Evaluation Row)	2	5	0	0	0	

1/3	x_2	5	6	1/4	1	1/4	0	0	24
11/3	S_2	0	15	11/4	0	-1/4	1	0	60/11
	S_3	0	3	3/4	0	-1/4	0	1	4
			NER	3/4	0	-5/4	0	0	

x_2	5	5	0	1	1/3	0	-1/3	NER elements are all non-positive.
S_2	0	4	0	0	2/3	1	11/3	
x_1	2	4	1	0	-1/3	0	4/3	
		NER	0	0	-1	0	0	

Hence $x_1 =4$, $x_2=5$ and $Z_{max}= 2\times4 +5\times5 =8+25=33$.

Alternative Solution:

Maximize $Z = 2X_1 + 5X_2 + 0.X_3 + 0.X_4 + 0.X_5$
Subject to constraints

$X_1 + 4X_2 + X_3 + 0.X_4 + 0.X_5 = 24$
$3X_1 + X_2 + 0.X_3 + X_4 + 0.X_5 = 21$
$X_1 + X_2 + 0.X_3 + 0.X_4 + X_5 = 9$
$X_1, X_2, X_3, X_4, X_5 \geq 0$

		b	2 X_1	5 X_2	0 X_3	0 X_4	0 X_5	MR
X_3	0	24	1	4	1	0	0	6
X_4	0	21	3	1	0	1	0	21
X_5	0	9	1	1	0	0	1	9
$Z_j - C_j$		0	-2	-5	0	0	0	

X_3 = Departing Vector
X_2 = Entering Vector

		b	2 X_1	5 X_2	0 X_3	0 X_4	0 X_5	MR
X_2	5	6	1/4	1	1/4	0	0	24
X_1	0	15	11/4	0	-1/4	1	0	60/11
X_5	0	3	3/4	0	-1/4	0	1	4
$Z_j - C_j$		30	-3/4	0	5/4	0	0	

X_5 = Departing Vector
X_1 = Entering Vector

		b	2 X_1	5 X_2	0 X_3	0 X_4	0 X_5	Since all the elements of $Z_j - C_j$ are non-negative, optimal solution is obtained as $X_2 = 5$, $X_1 = 4$ Max Z = 33
X_2	5	5	0	1	1/3	0	-1/3	
X_4	0	4	0	-11/4	2/3	1	-11/3	
X_1	2	4	1	0	-1/3	0	4/3	
$Z_j - C_j$		33	0	0	1	0	1	

4. (a) (i) Aadarsh Instruments, located in Ambala, is a medical instrument manufacturing company considered to apply Value Engineering in to the Focus Adjustment Knob in one of their model SL 250 for Slit Lamp in microscope. This microscope has found application in the field of eye inspection. The value engineering analysis may help company in running its export business of medical microscope. This firm is producing different types of microscopes which they export to various countries around the globe. All of the products manufactured here are conforming to the international standards. It is an ISO certified company.

The total savings after the implementation of value engineering are as given below:

- **Cost before analysis— ₹ 29.99**
- **Total Cost of Nylon Knob— ₹ 18.40**
- **Saving per product— ₹ 11.59**
- **Percentage saving per product— 38.64%**
- **Annual Demand of the product— 8,000**
- **Total Annual Saving— ₹ 92,720**
- **Value Improvement— ₹ 62.98%**

What are the steps to be followed for doing Value Engineering? How can you conclude the decision on the basis of the above Value Engineering? **8**

(ii) Write a note on "Kaizen Costing". 7

4. (b) (i) Maruti India Ltd. offers a range of cars from economy, Sedans, SUVs and used cars have decided to adopt JIT policy, in making of the New Alto car materials.

The following effects of JIT Policy are identified:

(1) To implement JIT, the company has to modify its production and material receipt facilities at a capital cost of ₹10,00,000. The new machine will require a cash operating cost of ₹1,08,000 per annum. The capital cost will be depreciated over 5 years.

(2) The Raw Material Stockholding will be reduced from ₹ 40,00,000 to ₹10,00,000.

(3) The company can earn 15% on its long-term investments.

(4) The company can avoid rental expenditure on storage facilities amounting to ₹33,000 per annum. Property taxes and insurance amounting to ₹22,000 will be saved due to JIT programme.

(5) Presently there are 7 workers in the store department at a salary of ₹ 5,000 each per month. After implementing JIT scheme, only 5 workers will be required in this department. Balance 2 workers' employment will be terminated.

(6) Due to receipt of smaller lots of Raw Materials, there will be some disruption of production. The costs of Stock-outs are estimated at ₹77,000 per annum.

Determine the finical impact of the JIT policy; is it advisable for the Maruti company to implement JIT for New Alto production system? 8

(ii) Distinguish between cost Reduction and Cost control. 7

4. (c) (i) Write a short note on Pricing strategies. 6

(ii) What are the various stages/steps to be taken in the implementation of TQM? 9

Answer:

4. (a) (i)

The following are the steps to be used for carrying out the Value Engineering exercise by Aadarsh Instruments in their model SL 250 for Slit Lamp in Microscope for the Focus Adjustment Knob:

i. Selection of the Product Plan.
ii. Gathering Product Information
iii. Functional Analysis
iv. Creativity Phase and preparing the work-sheet
v. Evaluation Sheet
vi. Cost Analysis
vii. Result and Conclusion
viii. Implementation.

<u>Conclusion;</u>

Value Engineering methodology is a powerful tool for resolving system failures and designing improvements in performance of any process, product, service or organization. In the Case

Study discussed under the question, we have used the concept of Value Engineering to analyze the Focus Adjustment Knob of SL 250 Slit Lamp Microscope. With a critical evaluation of this study, we have been able to increase the value of the product by substituting another material in place of the one currently in use. The% value improvement is to the tune of 62.98% and the total annual saving has been ₹92,720.

The various advantages have been observed in terms of:

- Cost Reduction
- Increase in overall production
- Reduction in man-power
- Reduction in scrap.

Thus the cost has been brought down by a substantial margin and thereby the value of the product has been increased.

4. (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 to 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.

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

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

<u>Make improvements continuously</u>: 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.

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

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

<u>Create work teams.</u>

<u>Cross functional teams</u>: 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.

4. (b) (i)

The cost- benefit analysis of JIT policy at Maruti India Ltd.

Costs	₹	Benefits	₹
Interest on capital for Modifying production Facilities (₹10,00,000 × 5%)	1,50,000	Interest on investment on released funds (₹40,00,000 - ₹ 10,00,000) × 15%	4,50,000

Operation Costs of new production facilities	1,08,000	Saving in salary of 2 workers terminated (₹5,000 × 12 × 2)	1,20,000
Depreciation of new production facilities	Nil	Saving in rental expenditure	33,000
Stock-outs Cost (given)	77,000	Saving in property tax Insurance	22,000
Net Benefit due to JIT policy	2,90,000		
Total	6,25,000	Total	6,25,000

Conclusion: The JIT policy for New Alto may be implemented, as there is a net benefit of ₹2,90,000 per annum.

Note: Depreciation, being apportionment of capital cost, has been ignored in decision-making. Further the tax saving on Depreciation has not been considered in the above analysis.

4. (b) (ii)

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 wholistic 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.

4. (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 no 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.

4. (c) (ii)

The various stages/steps to be taken in the implementation of TQM are, as listed below:
1. Identification of customers/customer groups.
2. Identification of customer expectations
3. Identification of customer decision-making requirements and product utilities
4. Identification of perceived problems in decision making process and product utilities.
5. Comparison with other organizations and Benchmarking
6. Customer Feedbacks

7. Identification of improvement opportunities
8. Quality Improvement Process through –
   (a) Determination of new strategies,
   (b) Elimination of deficiencies, and
   (c) Identifying solutions.

1. Stage 1: Identification of customers / customer groups: Through a team approach (a technique called Muiti - Voting), the firm should identify major customer groups. This helps in generating priorities in the identification of customers and critical issues in the provision of decision - support information.
2. Stage 2: Identifying customer expectations: Once the major customer groups are identified, their expectations are listed. The question to be answered is — What does the customer expect from the Firm?
3. Stage 3: Identifying customer decision-making requirements and product utilities: By identifying the need to stay close to the customers and follow their suggestions, a decision — support system can be developed, incorporating both financial and non-financial information, which seeks to satisfy user requirements. Hence, the Firm finds out the answer to - What are the customer's decision-making requirements and product utilities? Answer is sought by listing out managerial perceptions and not by actual interaction with the customers.
4. Stage 4: Identifying perceived problems in decision-making process and product utilities: Using participative processes such as brainstorming and multi-voting, the firm seeks to list out its perception of problem areas and shortcomings in meeting customer requirements. This will list out areas of weakness where the greatest impact could be achieved through the implementation of improvements. The firm identifies the answer to the question - What problem areas do we perceive in the decision-making process?
5. Stage 5: Comparison with other Firms and benchmarking: Detailed and systematic internal deliberations allow the Firm to develop a clear idea of their own strengths and weaknesses and of the areas of most significant deficiency. Benchmarking exercise allows the Firm to see how other Companies are coping with similar problems and opportunities.
6. Stage 6: Customer Feedback: Stages 1 to 5 provide a information base developed without reference to the customer. This is rectified at Stage 6 with a survey of representative customers, which embraces their views on perceived problem areas. Interaction with the customers and obtaining their views helps the Firm in correcting its own perceptions and refining its process.
7. Stage 7 & 8: Identification of improvement opportunities and implementation of Quality Improvement Process: The outcomes of the customer survey, benchmarking and internal analysis, provides the inputs for stages 7 and 8. i.e., the identification of improvement opportunities and the implementation of a formal improvement process.