FINAL EXAMINATION

GROUP III

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2014

Paper-15: BUSINESS STRATEGY & STRATEGIC COST MANAGEMENT

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

Section A (50 marks)

(Business Strategy)

Question No. 1 *is compulsory and carries 20 marks.*

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

1. Chawama Enterprises was established twenty-five years ago. The organization was formed to provide mining tools to the mines of M/s. Coal India Ltd. The organization has faced mixed fortunes in its business over the period of its existence. This is directly attributable to external forces faced over its life cycle both at macro and competitive environment levels. There are times when macro environment has been favourable and times when factors relating to political and economical environment had almost threatened the survival of the organization. During the world credit crunch, fall in copper prices and ever increasing importation prices of tools due to weaker Kwacha has once again created acute challenges for the organization.

In wake of the above background :

(a) Evalute how environmental analysis can help Chawama Enterprises deal with the business environment.

(b) Explain how Chawama Enterprises can use the Five Forces Model to evaluate how competitive the firm is. 10+10=20

Answer:

1. (a) An environmental analysis in strategic management plays a crucial role in businesses by pinpointing current and potential opportunities or threats outside the company in its external environment. The external environment includes political, environmental, technological and sociological events or trends that can affect the business directly or indirectly. An environmental analysis is generally conducted as part of an analysis of strengths, weaknesses, opportunities, and threats (SWOT) when a strategic plan is being developed. Managers practicing strategic management must conduct an environmental analysis quarterly, semi-annually, or annualty, depending on the nature of the business's industry. Being able to identify events or conditions in the external environments helps businesses achieve a competitive advantage and decrease its risk of not being prepared when faced with oncoming threats.

The purpose of an environmental analysis is to help in strategy development by keeping decision-makers within an organization informed on the external environment. This may include changing of political parties, increasing regulations to reduce pollution, technological developments, and shifting demographics. If a new technology is developed and is being used in a different industry, a strategic manager would see how this technology could also be used to improve processes within his business. An analysis allows businesses to gain an overview of their environment to find opportunities or threats.

Chawama must actively and consistently conduct environmental analysis by analyzing the political, legal, economical, social, environmental and technological environments. This analysis will be invaluable as follows:

(i) Chawama will be become knowledgeable about the macro environmental forces that are affecting the organization.

(i) Chawama will be able to establish a trend analysis of these forces in terms of how the forces have affected the firm over its life cycle. Are we faced with opportunities or threats, is the question to answer?

(iii) Chawama will know at any given point which force has high, medium or low impact. Currently most firms must deal with the economic environment. During 1991, the firm had to deal with the political environment.

(iv) Chawama can then construct scenarios representing possible future occurrences. This is applicable in times of acute uncertainty.

(v) Chawama will then develop strategies of dealing with each scenario should it occur in future.

(vi) The above will result in Chawama overcoming the negative implications of not taking the environment seriously.

(vii) Eventually environment analysis ensures long term survival as the organization is able to gain strategic foresight. Strategic management must address the environment in knowing what opportunities and threats are being posed by the environment.

(b) The five forces model helps organizations to analyze and evaluate their competitive position by looking at the impact of these forces. These forces include:

Threat of rivalry amongst current competitors- Chawama will have to look at the number of competing firms, are these firms supplying a homogenous product, are firms competing on price or quality and what are the exit barriers. For example, too many competitors increase competition. High exit barriers can also increase competition, while differentiation can reduce competition.

Threat of new entrants - the extent to which new entrants can establish similar business will result in Chawama finding its position undermined. Factors relating to entry barriers will have to be analyzed. Ease with which new entrants can get business from mines, ease of raising capital and ease of having access to sources of these tools can make it easy for new firms to set up the business in which Chawama is.

Threat of substitute products-this relates to whether mines can find alternative tools or methods of extracting minerals. In times where Chawama tools are getting expensive, the mines may be forced to get innovative or look at alternative tools.

Threat of bargaining power of suppliers- Chawama will have to ask themselves the extent to which the firm can force suppliers to reduce prices. This will depend on the quantities bought, the number of customers buying from the same supplier and the extent to which Chawama can easily switch to other sources of tools.

Threat of bargaining power of customers-this relates to mines. Can they drive the prices down? Under current economic problems, mines are finding strength in the crisis by citing economic vows as reducing their ability to pay and in the process forcing suppliers to reduce prices or be threatened with loss of business. The extent to which Chawama can deal with these forces will affect the level of profits, value and long term survival of the firm.

2. Strategic planning is often defined as a process of proactively aligning the organization's resources with threats and opportunities caused by changes in the external environment in order to achieve prescribed goals. While it focuses on the future, it also reflects on what happened in the past.

(i) Explain the four aspects that are embedded in the definition of strategic planning.

(ii) Point out reasons why organizations may embark on the concept of strategic planning.

(iii) State some shortcomings of strategic planning. 5+5+5=15

Answer:

(i) Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment. It is a disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful.

Strategic planning should be defined in four ways which are:-

I. Futurity of Current Decision:

It deals with the futurity of current decisions. Strategic planning looks at the chain of cause and effect consequences overtime of an actual or intended decision that a manager is going to make. Strategic planning looks also at the alternative courses of action that are open in the future and when are made among the alternatives they become the basis for making current decisions systematic identification of opportunities and threats that to lie in the future and deciding how best and the best way to exploit opportunities and avoiding threats.

II. Process

Strategic Planning is a process. It is the process that begins with the setting of organizational aims, defines objectives and policies to achieve them, and develop detailed plans to make sure that the strategies are implemented so as to achieve the ends sought. Strategic Planning for most organizations results in a set of plans produced after a specified period of time set aside for the development of the plans.

III. Philosophy

Strategic planning is an attitude, a way of life. It is more of a thought process, an intellectual exercise, than a prescribed set of processes, procedures, structures, or techniques. To get best results, managers and staff in the organization must believe that strategic planning is worth doing and must want to do it as well as they can.

IV. Structure

Strategic plans are Medium-range programmes and Short-range budgets and operating plans.

Sometimes boards and staff members need to be convinced that strategic planning is worth the investment of money and time.

They need to know how the process will benefit them and the organization.

(ii) Reasons why organizations may embark on the concept of strategic planning.

Strategic planning can provide enormous benefits.

It can:

- Bring clarity and agreement on mission and vision: Agreement on mission (the organization's purpose) is paramount. Without this agreement, an organization cannot be effective. The strategic planning process can provide an invaluable opportunity for dialogue and consensus among staff, board, and volunteers. Defining a shared vision (the organization's future direction) and then planning based on that desired outcome is the essence of strategic planning.
- Help organizations prepare for the future: As the popular saying goes, —If you don't know where you're going, you'll probably end up someplace else.
- A strategic plan outlines the steps to achieve a desired future for an organization. It is comforting for board, staff, and volunteers to have a roadmap to follow. The planning process prioritizes the work to be done. Strategic planning facilitates making short-term decisions based on long-term implications. Most important, a strategic plan provides a series of agreements about what needs *to* happen. It is a dynamic document that lending flexibility to the organization so that when change occurs, the plan can be adapted to accommodate the changes.
- Help organizations anticipate and manage change: Planning allows an organization to anticipate change and prepare for it. Planning also helps an organization deal with dramatic changes in its environment. In fact, by anticipating and planning for change, instead of just reacting to it, an organization can determine how to deal with the change.
- Improve the decision-making processes: With a strategic plan in place, day-to-day decision making and problem solving will be directly related to long-range and short-term goals. Planning reduces stress by making decisions easier, When choices are made within the context of a strategic framework, the organization's direction is clearly defined. If there is no strategic framework, the future of the organization is in the hands of whoever is making choices. Strategic decision making and problem solving assure that the organization's vision will be achieved.
- Promote effective stewardship: Practicing good stewardship means being accountable to others. In the case of charitable organizations, clients and funders of a nonprofit organization assume they will pay for services or donate money, respectively, to the organization, which will re-invest the revenues to address the social need. Similarly, association members and foundation board members assume that funds will be used for the greatest impact. Because strategic planning

helps nonprofit organizations fulfill their missions, it also helps them be stewards of the public's trust.

Align the board and staff: When there is shared purpose and direction, there is the basis of a high-performance team. When individuals are focused on the same goal or outcome, they feel a certain amount of synergy and often set aside differences, help each other, and become invested in a common purpose. An organization's mission cannot be achieved without board members and staff who agree on a common direction and are committed to achieving success for the organization.

Provide an opportunity to recommit to the cause: Focus on the future work of the organization can bring the board, staff, and other stakeholders into alignment around the mission — group interaction around a cause often fuels individual commitment.

Educate participants about institutional history: By producing a synopsis of significant events in the history of your organization, you will learn what has worked and what has not worked. Historical synopses might include a description of major milestones and changes that have contributed to how the organization functions today. By understanding your organization's past, you can make choices about what you want it to become in the future. This document can also be valuable in orientation of new staff, volunteers, and board members.

Identify existing strengths in the organization: Constituent feedback conducted in conjunction with the plan indicates how well the organization is meeting expectations. It can also show you where your efforts are paying off and what to celebrate.

Provide an opportunity to analyze the organization's systems and processes: It is valuable to conduct a critical review of the organization's processes and how it operates. A review provides an opportunity to analyze different systems and processes and make changes to improve them. Pay particular attention to communication channels and cross-functional operations.

Reinforce the need to commit to continuous improvement: Planning allows an organization to anticipate and prepare for change. An organization without an effective strategic plan may react in a hurried, scattered way to unanticipated circumstances.

(iii) Shortcomings of Strategic Planning

The common pitfalls in strategic planning are as follows:

- **(i)** Non-availability of correct and accurate data.
- **(ii)** Doing strategic planning only to satisfy accredition or regulatory requirements.
- **(iii)** Failing to communicate the plan to the people who execute the plan.
- **(iv)** Top management making intuitive decisions that conflict with formal plan.
- **(v)** Failing to use plans as a standard for measuring performance.
- **(vi)** Delegating tasks to a few persons rather than involving all managers.
- **(vii)** Failing to involve key employees in all phases of planning,
- **(viii)** Failing to create an environment conducive of change.
- **(ix)** Lack of flexibility and creativity.
- **(x)** Strategic planning usually restricted to hard business concerns, leaving without proper attention for soft issues like customer, quality, labour productivity, social concerns etc.

(xi) Strategy planning sometimes becomes a routine exercise, without having proper attention to strategic issues.

(xii) The planning process is isolated from the external groups that critically affect the company like labour unions, consumer advocates, social service organizations etc.

3. (a) Benchmarking is the process by which companies look at the "best" in the industry and try to imitate their styles and processes. Evaluate the rationale for benchmarking exercises and discuss the benefits of benchmarking to the company. 7

(b) (i) Why many companies opt to go for a Strategic Alliance?

(ii) State the critical factors for Strategic Alliance.

(iii) State the critical factors for Mergers and Acquisitions. 2+4+2=8

Answer:

3. (a) More narrowly defined, benchmarking is a systematic and continuous process involving the comparison of characteristics of the best products, services and processes in order to improve business performance .Benchmarking is a process of creating business knowledge by comparing and analyzing business information about other companies with the goal of improving the quality of decision-making. It seems this definition encompasses all the objectives and activities that are normally performed within the framework of benchmarking.

The final objective of benchmarking is the application of new business knowledge to business decision making. In improving the quality of business decisions, the business performance of companies also improves. Consequently, competitive advantages become stronger. Since decision-making is part of management, benchmarking is a continuous activity that refers to all areas and aspects of management. Since business performance and long-term survival depend on competitors' business and other factors of the business environment, it is reasonable to build benchmarking systematically in the processes of strategic management. This can improve the quality of decision-making and can become one of the company's competitive advantages.

The strategic management function is the aspect of management that takes superior entrepreneurship, competent strategy implementation and execution to produce superior organizational performance over the long run. The strategic management process has the following components:

1. defining the organization's mission as a basis for establishing what the organization does and does not do;
2. establishing strategic objectives and performance targets;
3. formulating strategies to achieve strategic objectives and targeted results;
4. implementing and executing strategies; and
5. evaluating strategic performance and making corrective adjustments.

With additional business information obtained by benchmarking, a company can improve the quality of its decision-making in strategic planning. It can also improve the quality of its decision-making in strategic controlling, leading to the more successful achievement of the set objectives. Therefore, it is reasonable to integrally build benchmarking into the activities of both planning and controlling.

According to the connections with individual activities of strategic management, benchmarking could be divided into four basic types:

1. the goal of benchmarking of competitive advantages is to create knowledge about factors on which the competitive advantages of competitors and other companies are based. The goal is to improve the company's long-run competitive advantages,
2. the goal of benchmarking of strategies is to create knowledge about the specifics of strategies used by competitors and other companies that lead to the successful achievement of objectives. The purpose is to use this knowledge in order to improve the effectiveness of strategies that lead to the realization of strategic objectives in the long run.
3. the goal of process benchmarking is to gain knowledge about the characteristics of planning, designing, executing and controlling various business processes and activities by which competitors and other companies successfully implement set strategies. The goal is to improve the efficiency of implementing their own strategies in the long run.
4. the goal of performance benchmarking is to create knowledge about competitors' and other companies' performance in order to assess comparatively the company's own business performance and to improve the quality of planning strategic objectives.

The benefits of benchmarking in strategic management can be summarized in the following points:

1. It enables more effective strategic planning and controlling;
2. it lowers the costs of incorrect business decisions;
3. it enables a company's efficiency to increase through the successful design and implementation of restructuring business processes and their continuous improvement;
4. it helps in solving business problems;
5. it adds an important element to the continuous education of employees, encourages their innovativeness, creativity and contributes to the creation of new ideas;
6. it enables a relative assessment of the business success and effectiveness of diverse business factors; and
7. it encourages changes and fosters special knowledge, which enables greater flexibility and faster adaptation to the changing business environment.

The benchmarking of competitive advantages enables a company to make better decisions about the competitive advantages it wants to develop and about its strategic objectives. The set objectives are the platform for carrying out the benchmarking of strategies, by which companies improve the quality of decisions about strategies that lead to meeting the set objectives. Strategies are the basis for conducting process benchmarking, by which the company tries to improve the efficiency of its processes for executing the set strategies. The consequence of these executed processes and activities is the company's performance on which performance benchmarking is focused. Thus, individual types of benchmarking are interrelated and their findings are intertwined. That is why benchmarking can only offer real support to strategic management when all four types are integrally connected.

Benchmarking can become a useful tool of strategic management if it is introduced integrally into the company. This means that it should cover all important categories of activities and that the company can take advantage of positive synergies arising between individual types of benchmarking.

Answer:

3. (b)

(i) Strategic Alliances: The Company goes for strategic alliances in order to reach its goals in more efficient way, where they can share their resources to be more competent in producing a product and engage in business activities for mutual economic gain. This is mainly undertaken to support one another in terms of:

- Material skills
- Innovation
- Finance
- Access to different markets.

(ii) Critical factors of Strategic Alliances:

Partner Congruity

Difficulties may arise because partners are not in complete agreement about the purpose of an alliance and the process by which its goals can be achieved. It is also possible that the short- and long-term objectives of partners are misunderstood, so the direction of the alliance may be rather fuzzy.

Government policies: Government policies may create structural impediments or facilitate the operation of cooperative arrangements. In countries where economic nationalism in high, alliances often have to be approved at the governmental level.

Alliances that have the support of governments in such environments may actually perform better because access may be opened to resources that are otherwise highly controlled and centralized.

Organizational Issues: Organizations may not have shared mental maps on business assumptions, criticality of events, and operating procedures.

Human Resource Management (HRM) Practices: Staffing and selection of key personnel for the alliance, performance appraisal, maintaining continuity of key personnel, and reward and compensation systems have been recognized as important HRM issues for strategic alliances. The differences in pay for individuals in the same position may lead to a problem.

Mergers and Acquisitions: An Acquisition is where organization takes ownership of another organization and Merger Implies Mutually agreed decisions for joint ownership between organizations. Here in case of both manager of one organization exert strategic influence over other. Acquisition can be

Horizontal- Takes place between firms in same line of business.

Vertical- A merger between two companies producing different goods or services for one specific finished product. Eg- A car manufacturer purchasing a tyre company.

Conglomerate- Formed through combination of unrelated business.

Moves:

Economies of Scale — This generally refers to method in which average cost per unit is decreased through increased production since fixed cost is shared over an increased number of goods.

Increased market share/Increase revenue — This motive assumes that the company will be absorbing the major competitor and thus increase its power (by capturing increased market share) to set prices.

Taxes — In order to have tax advantage benefit the giant company may acquire small so that tax can be set off against the losses of the acquiring company.

Improved market reach and Industry visibility — Company buys companies in order to have an access over the new markets and increase its revenue and earnings through reaching more markets. It helps them to expand marketing and distribution channels, giving them new sales opportunities.

Plugging a gap in the market — Business may feel that its product portfolio is not sufficient to cater for different customer needs in its market. Acquiring another firm that is already in that market enables it to plug that gap. It may be the case that a firm has a seasonal sales trend. Buying a business that has its predominant sales in a different season of the year will also be an example of how the firm's product portfolio might be enhanced through a merger and acquisition.

Accessing technology or skills — A firm may be targeted for acquisition because it has specific skills within its staff or has a particular technology that would be useful to another business. Businesses that are relatively new and might have hit upon idea or who have developed specific skills in a certain area might be ripe targets for acquisition.

(iii) Critical factors drive for Mergers and Acquisitions:

- Inadequate capital
- Lack of brand Images
- To survive in the market
- To expand market share
- To achieve economies of scale.

4. From peak sales of over 27,000 units in the January-March 2012 quarter to under 4,000 in the three months to December 2013, Tata Motors' Nano hasn't quite lived up to the hype and expectations built up since its launch in mid-2009. To combat with the situation now it launched Nano Twist, a 'smart city car' costing just under ₹ 2.36 lakhs.

Answer the following questions :

(a) What is strategic decision? What are its characteristics?

(b) Strategic decisions are complex in nature-explain.

(c) Explain how this strategic decision will help Tata Motors to repositioning themselves in the market. (1+7)+5+2=15

Answer:

4. (a) Strategic decisions are the decisions that are concerned with whole environment in which the firm operates the entire resources and the people who form the company and the interface between the two.

The characteristics of strategic decision are as follows:

(i) Strategic decisions are likely to affect the long-term direction of an organization

(ii) Strategic decisions are normally about trying to achieve some advantage for the organization.

(iii) Strategic decisions are likely to be concerned with the scope of an organization's activities: Does (and should) the organization concentrate on one area of activity, or does it have many? The issue of scope of activity is fundamental to strategic decisions because it concerns the way in which those responsible for managing the organization conceive its boundaries. It is to do with what they want the organization to be like and to be about.

(iv) Strategy is to do with the matching of the activities of an organization to the environment in which it operates.

(v) Strategy can also be seen as 'stretching' an organization's resources and competences to create opportunities or capitalize on them. It is not just about countering environmental threats and taking advantage of environmental opportunities; it is also about matching organizational resources to these threats and opportunities. There would be little point in trying to take advantage of some new opportunity if the resources needed were not available or could not be made available, or if the strategy was rooted in an inadequate resource-base.

(vi) Strategic decisions therefore often have major resource implications for an organization. In the 1980s a number of UK retail firms had attempted to develop overseas with little success and one of the major reasons was that they had underestimated the extent to which their resource commitments would rise and how the need to control them would take on quite different proportions. Strategies, then, need to be considered not only in terms of the extent to which the existing resource-base of the organization is suited to the environmental opportunities but also in terms of the extent to which resources can be obtained and controlled to develop a strategy for the future.

(vii) Strategic decisions arc therefore likely to affect operational decisions.

(viii) The strategy of an organization will be affected not only by environmental forces and resource availability, but also by the values and expectations of those who have power in and around the organization. In some respects, strategy can be thought of as a reflection of the attitudes and beliefs of those who have the most influence on the organization. Whether a company is expansionist or more concerned with consolidation, and where the boundaries are drawn for a company's activities, may say much about the values and attitudes of those who influence strategy — the stakeholders of the organization. The beliefs and values of these stakeholders will have a more or less direct influence on the organization.

(b) Strategy is the direction and scope of an organization over the long term, which achieves advantage for the organization through its configuration of resources within a changing environment, to meet the needs of markets and fulfils stakeholder expectations. Strategic decisions are, then, often complex in nature: it can be argued that what distinguishes Strategic management from other aspects of management in an organization is just this complexity.

The complexity arises for at least three reasons.

(i) strategic decisions usually involve a high degree of uncertainty: they may involve taking decisions on the basis of views about the future which is impossible for managers to be sure about.

(ii) strategic decisions are likely to demand an integrated approach to managing the organization. Unlike functional problems, there is no one area of expertise, or one perspective that can define or resolve the problems.

Managers, therefore, have to cross functional and operational boundaries to deal with strategic problems and come to agreements with other managers who, inevitably, have different interests and perhaps different priorities. This problem of integration exists in all management tasks but is particularly problematic for strategic decisions.

(iii) As has been noted above, strategic decisions are likely to involve major change in organizations. Not only is it problematic to decide upon and plan those changes, it is even more problematic actually to implement them. Strategic management is therefore distinguished by a higher order of complexity than operational tasks.

(c) Tata developed the Nano car world's cheapest car. Tata want to provide car to all common man but unfortunately that didn't go down with buyers too well. From the start, Tata Nano car faced trouble in factory establishment and many other issues. But now Tata comes out stronger on other side and ready to offer Nano automatic transmission. With the new Nano Twist, and the Nano eMax a few months back, Nano portfolio stands true to its brand essence: of a youthful, exciting car offering great value but, at the same time, builds in a different set of features to suit differing customer needs.

Focus on youth: The attempt over the past year has been to attract youngsters. To build a youthful and aspirational value around the brand, Tata Motors through its 'awesomeness' branding and marketing campaign launched Nano Twist. The makeover campaign is an attempt to get youngsters to look at the Nano as a fashion accessory. The company promises more on-ground activities and showcases at colleges to woo the youth.

Fresh positioning: From a people's car and the world's cheapest, the Nano is now positioned as the smart city car for young achievers. While the perception of a cheap car has still not gone away, the profile of the consumer has tremendously improved — along with the features in the car. Based on market research, Tata Motors has segmented potential customers into first-time buyers, those looking for a replacement or an additional car and others who want more features and performance. Near-term plans include a variant with automated transmission to strengthen the smart city car positioning. With all the significant product changes, it is a really easy-to drive car, great to maneuver, with a distinct individuality and colour and offering what no car can in this price range — a great style, entertainment and music, industry-leading power steering and more. The repositioning will make the product cater to a larger number of customer segments.

SECTION B (50 marks)

(Strategic Cost Management)

Question No. 5 is compulsory and carries 20 marks.

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

5. 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 (kg.)	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

Answer:

5. (i) Statement showing computation of contribution/kg of material and determination of priority for profitability:

(₹)

Product Code	701	702	821	822	937
(i) Selling Price	26.00	28.00	34.00	38.00	40.00
(ii) Variable Cost					
(a) Direct Material	0.7x ₹ 8*=5.60	0.5x8=4.00	1.4x8=11.20	1.3x8=10.40	1.5x8=12.00
(b) Labour	1x5=5.00	0.8x5=4.00	1.5x5= 7.50	1.1x5= 5.50	1.4x5= 7.00
(c) Production overheads	0.4x5=2.00	0.4x4=1.60	0.4x7.5=3.00	0.4x5.5=2.20	0.4x7= 2.80
(d) Selling expenses	0.15x26=3.90	0.15x28=4.20	0.15x34=5.10	0.15x38=5.70	0.15x40=6.00
	16.50	13.80	26.80	23.80	27.80
(iii)Contribution (i)-(ii)	9.50	14.20	7.20	14.20	12.20
(iv) Raw material qty/kg/unit (Given)	0.70	0.50	1.40	130	1.50
(v) Contribution/kg of material (iii/v)	13.57	28.40	5.143	10.90	8.13
(vi) Ranking	II	I	V	III	IV

*Material cost = ₹ 1,36,000/17,000 = ₹ 8/-

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

Product Code	701	702	821	822	937	Total
No. of units	8,000	7,200	—	6,000 (Balance figure)	—	
Contribution/unit	9.50	14.20	—	14.20	—	
Total Contribution	76,000	1,02,240	—	85,200	—	2,63,440
Fixed Cost						1,36,080**
Profit						1,27,360

Working Notes:

(i) **Computation of material apportioned on the basis of priority:**

Available material	17,000	Kgs,
Less: Used for 702 (7,200 x 0.50)	3,600	
	13,400	
Less: Used for 701 (8,000 x 0.7)	5,600	
	7,800	

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

** (ii) **Computation of Fixed Costs for 3 months:**

Selling & Administration Costs				= (₹ 3,00,000/12) × 3		₹ 75,000
Factory overhead:						
Prodn. Code	%	Rate (₹)	Units	₹		
702	60	4.00	7,200	17,280		
701	60	5.00	8,000	24,000		
822	60	5.50	6,000	19,800		₹61,080
						₹1,36,080

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**

(b) A Chemical Company produces two compounds A and B. The following table gives the units of ingredients C and D per kg of compounds A and B, as well as the minimum requirements of C and D and Costs/kg of A and B. Formulate the LPP equations. **5**

	Table Compound		Minimum requirement
	A	B	
Ingredient C	1	2	80
D	3	1	75
Cost per kg.	4	6	

Answer: 6. (a)

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) 10x15,000	1,50,000
Total	9,00,000
Contribution	6,00,000
Profit (₹16 2/3 per unit)	2,50,000
Fixed overheads (Balancing figure)	3,50,000

Comparative statement of the proposals (Revised Cost basis)

Capacity Units	Present Capacity 15,000	Maximum 20,000	Present Plus 10,000 units 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 x 4,95,000)	4,95,000	6,60,000	4,95,000 (+) 3,30,000
Direct Labour (25% on sales value) (10/15 x 3,75,000)	3,75,000	5,00,000	3,75,000 (+) 2,50,000
Variable overhead (₹10 per unit)	1,50,000	2,00,000	2,50,000
Fixed overhead	3,50,000 (+) 50,000	3,50,000 (+) 50,000	3,50,000 (+) 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.

Answer: 6. (b)

Let X_1 be the no. of units of A
Let X_2 be the no. of units of B.
The Objective Function would be : $Z_{min.} = 4X_1+6X_2$
Subject to the constraints:
$X_1 + 2X_2 \geq 80$,
$3X_1 + X_2 \geq 75$

And $X_1, X_2 \geq 0$.

7. (a) What are the various stages/steps to be taken in the implementation of TQM? How does TQM facilitate value addition in an organization? 8

(b) A Company has just completed the manufacture of 40 units of a new product. The manufacturing costs are :-

	₹
Direct Material	**2,00,000**
Direct Labour : 8,000 hour @ ₹20/hr	**1,60,000**
Variable Overheads	**80,000**
Special tools (re-usable)	**10,000**
Fixed overheads apportioned	**1,00,000**
Total	**5,50,000**

The Company policy is to add a profit of 12% on selling price.

The Company received another order for 120 units of this product for which the company quoted, based on its policy on absorption cost basis, a price of ₹15,625 per unit. The customer struck the order to ₹11,000 per unit. The Company is short of work and so is keen to take up more orders but it is reluctant to accept this order price because it is against the policy to accept any price below its cost. The Company experiences a learning curve of 90%.

(i) Compute the gain or loss arising from acceptance of the order of ₹11,000 per unit.

(ii) Advice whether the company should accept this order for 120 units or not. 5+2=7

Answer: 7. (a)

Steps of Implementation of TQM

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 Feedback

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 Multi - 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 used 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. This is done through a six-step process called PRAISE, for short.

Answer: 7. (b)

(i) Computation of Selling Price of First Order for 40 units

	₹
a. Total Costs (As given)	5,50,000
b. Number of units	40
c. Average cost per unit	13,750
d. Since profit is 12% on price, it is 12/88 on cost	1,875
e. Price Quoted (Cost+ Profit)	15,625

(ii) Computation of Time required for 120 units

No. of units	Time required per unit	Total time required
40	8,000 hrs/40 units = 200 hrs	8,000 hrs (Given) = 8,000 hrs.
80	200x90% = 180 hrs.	80 units x 180 hrs. pu = 14,400 hrs
160	180x90% = 162 hrs.	160 units x 162 hrs pu = 25,920 hrs.

Time required for 120 units = Cumulative Time required for 160 units - Time required for first 40 units

= 25,920-8,000

= 17,920 hours.

Cost Sheet for order of 120 units

Particulars	Computation	₹
Direct Material	(₹ 2,00,000 /40)x120 units	6,00,000
Direct Labour	17,920 hours x ₹ 20 per hour	3,58,400
Variable overheads	17,920 x ₹10 per hour	1,79,200
Special Tools (Re-usable)	Relevant Cost =Nil	Nil
Fixed Overheads	Idle Capacity-Not relevant	Nil
Total costs		₹11,37,600
Cost/unit	₹11,37,600/120	₹ 9,480
Price offered		₹ 11,000
Profit/unit		₹ 1,520
Total profit from 120 units	= ₹1,520 x 120 units	₹1,82,400

Decision: The order should be accepted.

8. Write Short Notes on *any three* of the following : 5x3=15

- **(a) Different Pricing Strategies**
- **(b) Areas of Cost Reduction and techniques to be adopted for Cost Reductions**
- **(c) Need for 'Lean Accounting'**
- **(d) Kaizen Costing**
- **(e) Strategies for combating 'hostile take-over'**

Answer: 8. (a)

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 (iii) 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.

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: 8. (b)

The areas and techniques of cost reduction:

The areas for Cost Reduction:

(i) Introduction of new design of the product to achieve savings in material usage.

(ii) Improvement of existing design to affect savings in materials by reduction of materials, substitution of cheaper materials.

(iii) Standardization and simplification of parts and components to improve productivity and reduce inventory.

(iv) Production planning to reduce costs through better layout, change of location etc.

(v) Tool design and its standardization to eliminate materials wastage's and reduce labour time.

(vi) Efficient use of support services.

(vii) Look out for alternate sources to type of materials.

(viii) Undertake energy saving schemes by reducing use of steam and power and undertaking improvements for recovery of heat or eliminating dissipation there of.

(ix) Control transmission losses of power and steam by better insulations.

(x) Look out for technical innovations and technological improvement to cut down on process step or to effect economies in yield or enable to increase production.

(xi) Try to achieve lower cost by better economies of scale.

Techniques to be employed for Cost Reduction:

(i) Value analysis to identify unnecessary costs.

(ii) Work and Time and Motion Study to eliminate wasteful movements and procedures.

(iii) ABC analysis to control inventory.

(iv) Vendor rating for better deals or trapping new sources.

(v) Economic Order Quantity and other methodology for minimum /maximum quantity and improvement upon lead time.

(vi) Operation Research Techniques like linear programming, PERT / CPM, simulations etc.

(vii) Use of marginal costing technique in all marginal decisions on buy or make or exploration of new markets or improvements etc.

Answer: 8. (c)

Need for 'Lean Accounting':

There are positive and negative reasons for using Lean Accounting. Lean Accounting provides accurate, timely and understandable information that can be used by managers, sales people, operations leaders, accountants, lean improvement teams and others. The information gives clear insight into the company's performance; both operational and financial. The Lean accounting reporting motivates people in the organization to move lean improvement forward. It is often stated that — What you measure is what will be improved. Lean accounting measures the right things for a company that wants to drive forward with lean transformation.

Lean Accounting is also itself lean. The information, reports, and measurements can be provided quickly and easily. It does not require the complex systems and wasteful transactions that are usually used by manufacturing Companies. The simplicity of lean Accounting frees up the time of the financial people and the operational people so that they can become more actively involved in moving the Company forward towards its strategic goals. The role of the financial professional moves away from bookkeeper and reporter and towards strategic partnering with the Company leaders.

At a deeper level Lean accounting matches the cultural goals of a lean organization. The simple and timely information empowers people at all levels of the organization. The financial and performance measurement information is organized around Value streams and thereby honors the lean principle of Value stream management. The emphasis on Customer Value is also derived from the principles of lean thinking. The way a Company accounts and measures its business is deeply rooted in the culture of organization. Lean Accounting has an important role to play in developing a lean culture within an organization.

Answer: 8. (d)

'Kaizen' is a Japanese term 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.

Answer: 8. (e)

The following are the strategies adopted to combat hostile take-over:

(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:

- The acquiring company may issue substantial amount of convertible debentures to its existing shareholders.
- The target firm may either sell off or mortgage or lease some of its precious assets,
- The target firm may dispose of its liquidity by acquiring some asset.
- 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 of 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.