Paper 9 – Operations Management & Strategic Management

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

The figures in the margin on the right side indicate full marks.
This question paper has two sections.
Both the sections are to be answered subject to instructions given against each.

Section – I: (Operations Management)

1. (a) Choose the most correct alternatives: **[1×10=10]**

(i) Application of technology or process to the raw material to add use value is known as:

(a) Product,

(b) Production,

(c) Application of technology,

(d) Combination of technology and process.

(ii) In Process Planning we plan:

(a) Different machines required,

(b) Different operations required,

(c) We plan the flow of material in each department,

(d) We design the product.

(iii) Example of production by disintegration is

(a) Automobile,

(b) Locomotive,

(c) Crude oil,

(d) Mineral water.

(iv) This aims at finding the best and most efficient way of using the available resources - men, materials, money and machinery:

(a) Time Study

(b) Work Study

(c) Method Study

(d) Job Evaluation

(v) Long range forecasting is useful in

(a) Plan for Research and Development,

(b) To Schedule jobs in production,

(c) In purchasing the material to meet the present production demand,

(d) To assess manpower required in the coming month.

(vi) Which one of the following standards is associated with the "Quality Assurance in Final Inspection Test"?

(a) ISO 9001

(b) ISO 9002

(c) ISO 9003

(d) ISO 9004

(vii) Regularly occurring periodic fluctuations are known as:

(a) Regular trend,

(b) Random element,

(c) Seasonal component,

(d) Trend.

(viii) In Operation Planning:

(a) The planner plans each operation to be done at work centers and the sequences of operations,

(b) Decide the tools to be used to perform the operations,

(c) Decide the machine to be used to perform the operation,

(d) Decide the materials to be used to produce the product.

(ix) One of the important charts used in Programme control is:

(a) Material chart,

(b) Gantt chart,

(c) Route chart,

(d) Inspection chart.

(x) The act of releasing the production documents to production department is known as:

(a) Routing,

(b) Scheduling,

(c) Expediting,

(d) Dispatching.

(b) Match the terms in Column I with the relevant terms in Column II **[1×6=6]**

Column I	Column II
(A) Furniture	(i) Assembly line
(B) Tools	(ii) Method study
(C) Television set	(iii) Carpentry
(D) Cement	(iv) Machine shop
(E) Aviation Fuel	(v) Rotary Kiln
(F) Motion Economy	(vi) Refinery

(c) State whether the following statements are True/False? **[1×6=6]**

(i) Merit Rating is used to determine the cost of a product **( )**

(ii) Increase in productivity leads to retrenchment of work force **( )**

(iii) Project costs increase as the duration of the project increases **( )**

(iv) Job Evaluation is a systematic approach to ascertain the labour worth of a job **( )**

(v) Production planning and control is essentially concerned with the control of Finished goods **( )**

(vi) Breakdown maintenance doesn't require use of standby machines **( )**

Answer:

1. (a) (i) (b) Production

(ii) (c) We plan the flow of material in each department

(iii) (c) Crude oil

(iv) (b) Work Study

(v) (c) In purchasing the material to meet the present production demand

(vi) (c) ISO 9003

(vii) (c) Seasonal component

(viii) (a) The planner plans each operation to be done at work centers and the sequences of operations,

(ix) (b) Gantt chart

(x) (d) Dispatching

(b)

Column I	Column II
(A) Furniture	(i) Carpentry
(B) Tools	(ii) Machine shop
(C)Television set	(iii) Assembly line
(D)Cement	(iv) Rotary Kiln
(E) Aviation Fuel	(v) Refinery
(F) Motion Economy	(vi) Method Study

(c) (i) (False)

(ii) (False)

(iii) (True)

(iv) (True)

(v) (False)

(vi) (False)

Answer any *three* questions form the following:

2. (a) Define plant layout. What are the factors influencing layout choices? [6]

(b) The monthly requirement of raw material for a company is 3000 units. The carrying cost is estimated to be 20% of the purchase price per unit, in addition to ₹ 2 per unit. The purchase price of raw material is ₹ 20 per unit. The ordering is ₹ 25 per order.

(i) You are required to find EOQ.

(ii) What is the total cost when the company gets a concession of 5% on the purchase price if it orders 3000 units or more but less than 6000 units per month. [4+6]

Answer:

2. (a) Plant Layout, also known as layout of facility refers to the configuration of departments, work-centres and equipment and machinery with focus on the flow of materials or work through the production system.

Plant layout or facility layout means planning for location of all machines, equipments, utilities, work stations, customer service areas, material storage areas, tool servicing areas, tool cribs, aisles, rest rooms, lunch rooms, coffee/tea bays, offices, and computer rooms and also planning for the patterns of flow of materials and people around, into and within the buildings.

Factors influencing layout choices:

Primarily the layout of a plant is influenced by the relationship among materials, machinery and men. Other factors influencing layout are type of product, type of workers, the type of industry, management policies etc.

Some of these factors are discussed in detailed below:

- ***Location:*** The size and type of the site selected for the plant, influences the type of buildings (single story or multi story) which in turn influences the layout design. Also, the location of the plant determines the mode of transportation from and into the plant (such as by goods trains, truck, or ships) and the layout should provide facilities for mode of transport used. Also, the layout should provide for storage of fuel, raw materials, future expansion needs, power generation requirements etc.
- ***Machinery and Equipments:*** The type of product, the volume of production, type of processes and management policy on technology, determines the type of machines and equipments to be installed
- ***Managerial Policies:*** regarding volume of production, provision for future expansion, extent of automation, make-or-buy decisions, speed of delivery of goods to customers,

purchasing and inventory policies and personnel policies influence the plant layout design.

- ***Materials:*** Plant layout includes provision for storage and handling of raw materials, supplies and components used in production. The type of storage areas, racks, handling equipments such as cranes, trolleys, conveyors or pipelines etc., used - all depend on the type of materials used - such as solid, liquid, light, heavy, bulky, big, small etc.
- ***Product:*** The type of product i.e., whether the product is light or heavy, big or small, liquid or solid etc., it influences the type of layout. For example, Ship building, Aircraft assembly, Locomotive assembly etc., requires a layout type different from that needed to produce refrigerators, cars, scooters, television sets, soaps, detergents, soft drinks etc. The manufacturing process equipments and machines used and the processing steps largely depend on the nature of the product and hence the layout design depends, very much on the product.

(b) We are given that,

D = 3,000 × 12 = 36,000 units per annum

S = ₹ 25

C = 2 + 20% of ₹ 20

= 2 + 4 = ₹ 6

(i) EOQ $= \sqrt{\frac{2DS}{C}}$

$= \sqrt{\frac{2\times 36,000\times 25}{6}}$

$= \sqrt{3,00,000}$

= 548 units app.

Total cost = Ordering Cost + Cost of raw material + Storage cost

$= \left(\frac{36,000}{548}\times 25\right)$ + (36,000 × 20) + $\left(\frac{548}{2}\times 6\right)$

= ₹ 1,642.33 + 7,20,000 + 1,644

= ₹ 7,23,286

(ii) When the company has an option to order between 3000 and 6000 units, the EOQ should be calculated with a reduction in price by 5% (due to concession)

The purchase price = 95% of ₹ 20

= ₹ 19.

D = 36,000 units per annum

S = ₹ 25

C = 2 + 20% of 19

= 2 + 3.80

= ₹ 5.80

$$EOQ = \sqrt{\frac{2\times 36,000\times 25}{5.80}}$$

$$= \sqrt{\frac{18,00,000}{5.80}} = 557 \text{ units app.}$$

$$\text{Total cost} = \left(\frac{36,000}{557}\times 25\right) + (36,000 \times 19) + \left(\frac{557}{2}\times 5.80\right)$$

= ₹ 1,615.79 + 6,84,000 + 1,615.30

= ₹ 6,87,231.09

3. (a) What does Product Design do? Discuss – Process design and selection. [6]

(b) Machine A costs of ₹ 80,000. Annual operating costs are ₹ 2,000 for the first year, and they increase by ₹ 15,000 every year (for example, in the fourth year the operating costs are ₹ 47,000). Determine the lease age at which to replace the machine. If the optimal replacement policy is followed; what will be the average yearly cost of operating and owning the machine? (Assume that the resale value of the machine is zero when replaced, and that future costs are not discounted.

(i) Another machine B costs ₹ 1,00,000. Annual operating cost for the first year is ₹ 4,000 and they increase by ₹ 7,000 every year. The firm has a machine of type A which is one year old. Should the firm replace it with B and if so, when?

(ii) Suppose the firm is just ready to replace the machine A with another machine of the same type, just then the firm gets and information that the machine B will become available in a year. What should the firm do? [10]

Answer:

3. (a) The activities and responsibilities of product design include the following:

(i) Translating customer needs and wants into product and service requirements (marketing).

(ii) Refining existing products (marketing).

(iii) Developing new products (marketing, product design and production).

(iv) Formulating quality goals (quality assurance, production).

(v) Formulating cost targets (accounting).

(vi) Constructing and testing prototype (marketing, production).

(vii) Documenting specifications (product design).

Process Design is concerned with the overall sequences of operations required to achieve the product specifications. It specifies the type of work stations to be used, the machines and equipments necessary to carry out the operations. The sequence of operations are determined by (a) the nature of the product, (b) the materials used, (c) the quantities to be produced and (d) the existing physical layout of the plant.

The process design is concerned with the following:

(i) Characteristics of the product or service offered to the customers.

(ii) Expected volume of output.

(iii) Kinds of equipments and machines available in the firm.

(iv) Whether equipments and machines should be of special purpose or general purpose.

(v) Cost of equipments and machines needed.

(vi) Kind of labour skills available, amount of labour available and their wage rates.

(vii) Expenditure to be incurred for manufacturing processes.

(viii) Whether the process should be capital-intensive or labour-intensive.

(ix) Make or buy decision.

(x) Method of handling materials economically.

(b) The operating cost of machine A in successive years are as follows:

Year	1	2	3	4	5
Operating Cost (₹)	2,000	17,000	32,000	47,000	62,000

Calculations for average cost of Machine A

Replacement at the end of year	Cumulative operating cost (in ₹)	Depreciation Cost (in ₹)	Total Cost (in ₹)	Average Cost per year (in ₹)
1	2,000	80,000	82,000	82,000
2	19,000	80,000	99,000	49,500
3	51,000	80,000	1,31,000	43,666
4	98,000	80,000	1,78,000	44,500
5	1,60,000	80,000	2,40,000	48,000

It is clear from the table that machine A should be replaced at the end of third year. The average yearly, cost of owning & operating machine A in this situation will be ₹ 43,666.

(i) The operating cost of machine B are as follows:

Year	1	2	3	4	5	6
Operating Cost (₹)	4,000	11,000	18,000	25,000	32,000	39,000

Calculations for average cost of Machine B

Replacement at the end of year	Cumulative operating cost (in ₹)	Depreciation Cost (in ₹)	Total Cost (in ₹)	Average Cost per year (in ₹)
1	4,000	1,00,000	1,40,000	1,04,000
2	15,000	1,00,000	1,15,000	57,500
3	33,000	1,00,000	1,33,000	44,333
4	88,000	1,00,000	1,58,000	39,500
5	90,000	1,00,000	1,90,000	38,000
6	1,29,000	1,00,000	2,29,000	38,166

It is clear from the above Table that if machine B is replaced after 5 years then its average cost per year is ₹ 38,000. Since the lowest average cost for machine B (₹38,000) is less than the lowest average cost for machine A (R.s 43,666), the machine A should be replaced by machine B. Now to find the time of replacement of Machine A by Machine B, we proceed as follows:

The machine A is replaced by machine B at the time (age), when its running cost of the next year exceed the lowest average yearly cost ₹ 38,000 of machine B. Further, the total cost of the machine A in the successive years are computed as follows:

Year	1	2	3	4	5
Total cost in the year (₹)	82,000	99,000 – 82,000 = 17,000	1,31,000 – 99,000 = 32,000	1,78,000 – 1,31,000 = 47,000	2,40,000 – 1,78,000 = 62,000

The running cost of fourth year of machine A is ₹ 47,000 which is more than the lowest average yearly cost ₹ 38,000 of machine B. therefore, the machine A should be replaced by machine B, when its age is 1 year. Since the machine A is one year old now, it should be replaced just now.

Install new machine now and replace it with machine B during the third year.

4. (a) Without standby equipment, a shutdown will cost ₹ 200 a day. It is estimated that an average of 2.5 days a year can be lost due to shutdowns. A standby machine can be purchased for ₹ 4,000 with an economic life of 10 years and ₹ 500 salvage value at that data. Its annual costs including 2.5 days of actual operation would be ₹ 100. Make a choice. [6]

(b) Describe the objective of Time Study. [6]

(c) What are the elements of lean production? [4]

Answer:

4. (a) Annual cost of shutdown = 200 × 2.5 = ₹ 500

Annual cost of standby equipment

Depreciation = $\frac{4,000-5,000}{10}$ = ₹ 350

Opening cost = ₹ 100

Total 450

Therefore, standby equipment is preferable.

(b) Time study is concerned with the determination of the amount of time required to perform a unit of work. It consists of the process of observing and recording the time required to perform each element of an operation so as to determine the reasonable time in which the work should be completed. Time study is defined by ILO as below 'Time study is a work measurement technique for recording the times and rates of working for the elements of a specified job carried out under specified conditions and for analyzing

the data so as to obtain the time necessary for carrying out the job at a defined level of performance'.

Objective of time study:
The main objective is 'to determine by direct observation, the quantity of human work in a specified task and hence to establish the standard time, within which an average worker working at a normal pace should complete the task using a specified method'.

The other objectives are:

(i) To furnish a basis of comparison for determining operating effectiveness.

(ii) To set labour standard for satisfactory performance.

(iii) To compare alternative methods in method study in order to select the best method.

(iv) To determine standard costs.

(v) To determine equipment and labour requirements.

(vi) To determine basic times/normal times.

(vii) To determine the number of machines an operator can handle.

(viii) To balance the work of operators in production or assembly lines.

(ix) To provide a basis for setting piece rate or incentive wages.

(x) To set the completion schedules for individual operations or jobs.

(c) The elements of lean production are:

(i) To consider the organisation in terms of supply chain of value streams that extends from suppliers of raw materials, through transformation to the final customer.

(ii) To organise workers in teams and to have everyone in the organisation conscious of his or her work.

(iii) To produce products of perfect quality and to have continuous quality improvement as a goal.

(iv) To organise the operation by product or cellular manufacturing, rather than using a functional or process lay-out.

(v) To operate the facility in a just-in-time mode.

5. (a) Draw the network for the following activities and find critical path and total duration of project.

Activity	Duration (months)	Activity	Duration (months)
1-2	2.5	4-5	2.0
2-3	2.5	5-6	3.0
2-4	1.5	6-7	1.5
3-4	1.0	5-7	1.5
3-5	1.0		

[8]

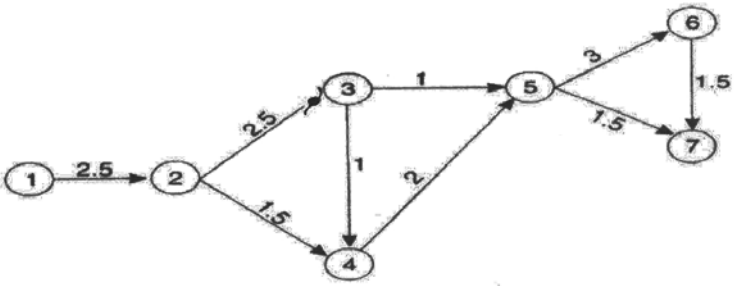
(b) A public transport system is experiencing the following number of breakdowns for months over the past 2 years in their new fleet of vehicles:

Number of breakdowns	**0**	**1**	**2**	**3**	**4**
Number of months this occurred	**2**	**8**	**10**	**3**	**1**

Each break down costs the firm an average of ₹ 2,800. For a cost of ₹ 1,500 per month, preventive maintenance can be carried out to limit the break-downs to an average of one per month. Which policy is suitable for the firm? [8]

Answer:

5. (a)



Paths	Duration
1-2-3-5-6-7	2.5+2.5+1+3+1.5 = 10.5
1-2-3-5-7	2.5+2.5+1+1.5 = 7.50
1-2-3-4-5-6-7	2.5+2.5+1+2+3+1.5 = 12.5 (Critical Path)
1-2-3-4-5-7	2.5+2.5+1+2+1.5 = 9.5
1-2-4-5-7	2.5+1.5+2+1.5 = 7.5
1-2-4-5-6-7	2.5+1.5+2+3+1.5 = 10.5

(b) Converting the frequencies to a probability distribution and determining the expected cost/month of breakdowns we get:

No. of breakdowns (X)	Frequency in months (FX)	Frequency in per cen P(X)	Expected value X.P(X)
0	2	0.083	0
1	8	0.333	0.333
2	10	0.417	0.834
3	3	0.125	0.375
4	1	0.042	0.168
		Total	1.710

Breakdown cost per months

$$\text{Expected} = \left(\frac{1.71 \text{ breakdowns}}{\text{month}}\right)\left(\frac{₹\ 2,800}{\text{breakdown}}\right)$$

$$= \frac{₹\ 4,788}{\text{month}}$$

Preventive maintenance cost per month

Average cost of one breakdown/month	=	₹ 2,800
Maintenance contract cost/month	=	₹ 1,500
Total		₹ 4,300

Thus, preventive maintenance policy is suitable for the firm.

Section – II: (Strategic Management)

6. Choose the correct answer from the given alternatives: [1×6=6]

(i) Business Process Re-engineering is

(a) Eliminating loss-making process;

(b) Redesigning operational processes;

(c) Redesigning the product and services;

(d) Recruiting the process engineers.

(ii) Strategic choice makes a statement about the corporate strategy as well as business strategy:

(a) They are one and the same;

(b) One is an external planning and another resources planning statement;

(c) Corporate strategy is a general statement and business strategy defines how a SBU shall operate;

(d) Both states certain course of action – one for the total unit and another for a particular business agent;

(e) One refers to the whole business and another helps in the formulation of marketing decisions.

(iii) Benchmarking is:

(a) The analytical too! to identify high cost activities based on the 'Pareto Analysis'.

(b) The search for industries best practices that lead to superior performance;

(c) The simulation of cost reduction schemes that help to build commitment and improvement of actions;

(d) The process of marketing and redesigning the way a typical company works;

(e) The framework that earmarks a linkage with suppliers and customers.

(iv) The conditional of Low share, Negative growth and negative cash flow indicates -

(a) Dogs.

(b) Dodos.

(c) Donkey.

(d) Dinosaurs.

(v) Offensive strategy is a strategy:

(a) For small companies that consider offensive attacks in the market.

(b) For those companies that search for new inventory opportunities to create competitive advantage.

(c) For the market leader who should attack the competitor by introducing new products that make existing ones obsolete.

(d) For those companies who are strong in the market but not leaders and might capture a market share from the leader.

(e) None of the above.

(vi) A strategic business unit (SUB) is defined as a division of an organization:

(a) That help in the marketing operation;

(b) That enable managers to have better control over the resources;

(c) That help in the choice of technology;

(d) That help in the allocation of scarce resources;

(e) That help in identifying talents and potentials of people.

Answer:

6. (i) (b) Redesigning operational processes.

(ii) (c) Strategic choice makes a statement about the corporate strategy as well as business strategy : the former refers to the whole business while the latter helps in the formulation of marketing and other decisions.

(iii) (b) The search for industries best practices that lead to superior performance.

(iv) (b) Dodos

(v) (d) For those companies who are strong in the market but not leaders and might capture a market share from the leader.

(vi) (d) A strategic business unit (SBU) is defined as a division of an organization: that enable managers to have better control over the resources.

Answer any *two* question form the following:

7. (a) Discuss the advantages of Strategic Management?

(b) Discuss "Strategic levels in the organizations" [6+6]

Answer:

(a) The Advantages of Strategic Management

- **Discharges Board Responsibility**

  The first reason that most organizations state for having a strategic management process is that it discharges the responsibility of the Board of Directors.

- **Forces an Objective Assessment**

  Strategic management provides a discipline that enables the board and senior management to actually take a step back from the day-to-day business to think about the future of the organization. Without this discipline, the organization can become solely consumed with working through the next issue or problem without consideration of the larger picture.

- **Provides a Framework for Decision-Making**

  Strategy provides a framework within which all staff can make day-to-day operational decisions and understand that those decisions are all moving the organization in a single direction. It is not possible (nor realistic or appropriate) for the board to know all the decisions the executive director will have to make, nor is it possible (nor realistic or practical) for the executive director to know all the decisions the staff will make. Strategy provides a vision of the future, confirms the purpose and values of an organization, sets objectives, clarifies threats and opportunities, determines methods to leverage strengths, and mitigate weaknesses (at a minimum). As such, it sets a framework and clear boundaries within which decisions can be made. The cumulative effect of these decisions (which can add up to thousands over the year) can have a significant impact on the success of the organization. Providing a framework within which the executive director and staff can make these decisions helps them better focus their efforts on those things that will best support the organization's success.

- **Supports Understanding & Buy-In**

  Allowing the board and staff participation in the strategic discussion enables them to better understand the direction, why that direction was chosen, and the associated benefits. For some people simply knowing is enough; for many people, to gain their full support requires them to understand.

- **Enables Measurement of Progress**

  A strategic management process forces an organization to set objectives and measures of success. The setting of measures of success requires that the organization first determine what is critical to its ongoing success and then forces the establishment of objectives and keeps these critical measures in front of the board and senior management.

- **Provides an Organizational Perspective**

  Addressing operational issues rarely looks at the whole organization and the interrelatedness of its varying components. Strategic management takes an organizational perspective and looks at all the components and the interrelationship between those components in order to develop a strategy that is optimal for the whole organization and not a single component.

(b) There are primarily three levels of strategies in the organisation.

1. Corporate Level
2. Business Level
3. Functional Level

1. Corporate Level:

The corporate level of management consists of the chief executive officer (CEO), other senior executives, the board of directors, and corporate staff. These individuals occupy the top-committee of decision making within the organisation. The CEO is the principal general manager. In consultation with other senior executives, the role of corporate-level managers is to oversee the development of strategies for the whole organisation. This role includes defining the mission and goals of the organisation, determining what businesses it should be in, allocating resources among the different businesses, formulating and implementing strategies that span individual businesses, and providing leadership for the organisation. For example, strategies formed for Unilever Limited would be at corporate level.

2. Business Level:

A business unit is a self-contained division (with it's own functions-for example, finance, purchasing, production, and marketing departments) that provides a product or service for a particular market. The principal general manager at the business level, or the business-level manager, is the head of the division. The strategic role of these managers is to translate the general statements of direction and intent that come from the corporate level into concrete strategies for individual businesses. Thus, whereas corporate-level general managers are concerned with strategies that span individual businesses, business-level general managers are concerned with strategies that are specific to a particular business. At GE, a major corporate goal is to be first or second in every business in which the corporation competes. Then the general managers in each division work out for their business the details of a strategy that is consistent with this objective. For example, strategies formed for Kwality Walls, a subsidiary of Unilever Limited would be at business level.

3. Functional Level:

Functional-level managers are responsible for the specific business functions or operations (human resources, purchasing, product development, customer service, and so on) that constitute a company or one of it's divisions. Thus, a functional manager's sphere of responsibility is generally confined to one organisational activity, whereas general managers oversee the operation of a whole company or division. Although they are not responsible for the overall performance of the organisation, functional managers nevertheless have a major strategic role: to develop functional strategies in their area that help fulfill the strategic objectives set by business & corporate-level general managers. Moreover, functional managers provide most of the information that makes it possible for business & corporate-level general managers to, formulate realistic and attainable strategies. Indeed,

because they are closer to the customer than the typical general manager is, functional managers themselves may generate important ideas that subsequently may become major strategies for the company. Thus, it is important for general managers to listen closely to the ideas of their functional managers. An equally great responsibility for managers at the operational level is strategy implementation: the execution of corporate and business-level plans. For example, strategies formed for employee retention by HR manager at Kwality Walls would be at functional level.

8. (a) Discuss the differences in Strategic Management & Strategic Planning.

(b) Define SBU. What are its merits & demerits? [6+6]

Answer:

(a) The basic difference between Strategic management and Strategic planning are as follows:

Strategic Management	Strategic Planning
1. It is focused on producing strategic results; new markets; new products; new technologies etc.	1. It is focused on making optimal strategic decisions
2. It is management by results.	2. It is management by plans
3. It is an organizational action process	3. It is an analytical process
4. It broadens focus to include psychological, sociological and political variables.	4. It is focused on business, economic and technological variables
5. It is about choosing things to do and also about the people who will do them.	5. It is about choosing things to do

(b) SBU groups similar divisions into "Strategic Business Units" and then delegate's authority and responsibility of each unit to a senior executive who is normally identified as CEO or MD of that SBU. It is an extension of Divisional structure.

SBU Structure

Big organisation like Unilever, etc have many SBUs for their different categories of products like Cosmetics, Food products and Beverages, etc, and each is managed through separate unit head.

Advantages:

(i) Promotes accountability since units" heads are responsible for individual SBU profitability

(ii) Career development opportunities are further higher in this structure

(iii) Allow better control of categories of products manufacturing, marketing and distributions

(iv) Helps to expand in different related and unrelated businesses

Disadvantages:

(i) May provide inconsistent approach to tackle customers, etc, because each unit may work in it's own way to handle situations

(ii) High cost approach

9. Write short notes on any *three* of the following four questions: [4×3=12]

(a) Structural Driver's of Change;

(b) Approaches in Strategic Planning;

(c) SWOT Analysis;

(d) Plant location.

Answer:

(a) Structural Drivers of Change are forces likely to affect the structure of an industry, sector or market. The following are some of the factors

- **Increasing convergence of markets**

  In some markets the customers' needs and preferences are becoming more similar. As some markets globalise, those operating in such markets become global customers and may search for suppliers. Moreover marketing policies needs to be developed all over again.

- **Cost advantage of global operations**

  This benefit might accrue to industries that operate in large volume, standardised production and enjoy economies of scale. In order to realise location economies businesses search globally for low cost operations and enjoying competitive edge.

- **Activities and policies of the governments**

  The government policies and activities have also resulted in influencing the globalisation of industry. The moves towards free trade and technical standardisation of many products between countries have resulted in increasing competition.

- **Global competition**

  It is the global competition that acts as a driver to globalisation. It may be mentioned that high level of import and export between countries incresese interaction between competitors on a more global scale. The interdependence of companies across the world promotes global trade.

(b) Approaches in Strategic Planning

It is important to operate a planning process which will not only produce realistic and potentially rewarding plans but will also secure the support of all those involved in implementing them. There are three approaches that can be adopted to strategic planning:

(i) A top-down process, in which managers are given targets to achieve which they pass on down the line.

(ii) A bottom-up process, in which functional and line managers in conjunction with their staff submit plans, targets and budgets for approval by higher authority.

(iii) An iterative process, which involves both the top-down and bottom-up setting of targets. There is a to-and-from movement between different levels until agreement is reached. However, this agreement will have to be consistent with the overall mission, objectives and priorities and will have to be made within the context of the financial resources available to the organization. The iterative approach, which involves the maximum number of people, is the one most likely to deliver worthwhile and acceptable strategic plans.

(c) SWOT Analysis:

Gathering data about the general, operating, and internal environments provides the raw material from which to develop a picture of the organisational environment.

SWOT analysis refines this body of information by applying a general framework for understanding and managing the environment in which an organisation operates. (The acronym SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.) In many respects, the sophisticated analytical techniques discussed throughout the text are further refinements of basic SWOT analysis. In addition, students have repeatedly told us that SWOT is an excellent way to begin a case analysis. SWOT analysis attempts to assess the internal strengths and weaknesses of an organisation and the opportunities and threats that it's external environment presents. SWOT seeks to isolate the major issues facing an organisation through careful analysis of each of these four elements. Managers can then formulate strategies to address key issues.

(d) Plant Location:

Plant location is essentially an investment decision having long-term significance and implied economic effects. A good decision plays off; a bad decision can cause grim financial difficulties. Once a plant is acquired, it is a permanent site that cannot readily be sold. The management may also contemplate relocation of the plant when business expansion and advanced technology require additional facilities to serve new market areas, to produce new products, or simply to replace the old, obsolete plants to increase the company's production capacity.

Before a location for a plant is sought, long range forecasts should be made anticipating the future needs of the company. These should be based on the company's expansion policy, the anticipated diversification of products, the trends in market demand, geographical distribution, material and labour supply, and any other foreseeable influences. Thus, plant location decisions require intensive study of economic and socio-political circumstances.

The accuracy of forecasting is essential regarding rising demand and anticipated sales increases. Miscalculation in this respect may post serious problems before the company can occupy the new facilities once built and expand the new facilities subsequently due to land and environmental constraints.

The selection of an appropriate plant site calls for location study of the region in which the factory is to be situated, the community in which it should be placed and finally, the exact site in the city or countryside.