Paper 9- OPERATIONS MANAGEMENT & STRATEGIC MANAGEMENT

Paper 9- Operations Management and Strategic Management

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 correct answer from the given four alternatives.   **[1x10=10]**

   (i) The material handling cost per unit of product in Continuous production is:
   - **(a)** Highest compared to other systems,
   - **(b)** Lower than other systems,
   - **(c)** Negligible,
   - **(d)** Cannot say.

   (ii) The desired objective of Production and Operations Management is:
   - **(a)** Use cheap machinery to produce,
   - **(b)** To train unskilled workers to manufacture goods perfectly,
   - **(c)** Optimal utilisation of available resources,
   - **(d)** To earn good profits.

   (iii) In aggregate planning, one of the methods in modification of demand is:
   - **(a)** Differential Pricing,
   - **(b)** Lay off of employees,
   - **(c)** Over time working,
   - **(d)** Sub contracting.

   (iv) In a CPM/PERT network a dummy activity is necessary when
   - **(a)** two activities have the same starting node
   - **(b)** two activities have the same ending node
   - **(c)** a node does not actually connect to another node
   - **(d)** two activities share the same starting and ending node

   (v) Fixing the flow lines of materials in production is known as:
   - **(a)** Scheduling,
   - **(b)** Loading,
   - **(c)** Planning,
   - **(d)** Routing.

   (vi) Preferred numbers are used to:
   - **(a)** To determine the number of varieties that are to be manufactured,
   - **(b)** To the test the design of the product,
   - **(c)** To ascertain the quality level of the product,
   - **(d)** To evaluate the production cost.

   (vii) When work centers are used in optimal sequence to do the jobs, we can:
   - **(a)** Minimise the set up time,
   - **(b)** Minimse operation time,
   - **(c)** Minimise the breakdown of machines,
   - **(d)** Minimise the utility of facility.

(viii) **Which one of the following standards is associated with the "Quality Assurance in Production and Installation"?**
(a) ISO 9001
(b) ISO 9002
(c) ISO 9003
(d) ISO 9004

(ix) **The time horizon selected for forecasting depends on:**
(a) The salability of the product,
(b) The selling capacity of Salesman,
(c) Purpose for which forecast is made,
(d) Time required for production cycle

(x) **In Continuous manufacturing system, we need:**
(a) General purpose machines and Skilled labours,
(b) Special machine tools and highly skilled labours,
(c) Semi automatic machines and unskilled labours,
(d) General purpose machines and unskilled labours.

(b) **Match the following:** [6×1=6]

	Column 'A'		Column 'B'
a.	Normal Curve	i.	Project Funding
b.	Stock level	ii.	Capacity planning
c.	Short Run Average Cost	iii.	Job Evaluation
d	Industrial Finance Corporation of India	iv.	Statistical Quality Control
e.	Ranking Method	v.	Value Analysis
f.	Improvement in productivity	vi.	Inventory Control

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

(i) EOQ formula does not consider storage cost.
(ii) Results available from work sampling study is 100% accurate.
(iii) In a Network Analysis, a job for which the slack time is zero is known as non-critical job.
(iv) Z chart is a chart used in Programme Control.
(v) When demand does not exist in the market, we should start Production Incentives.
(vi) It is justified to consider the effect of working condition both in Work Measurement and Job-Evaluation.

Answer:

1. (a) (i)   (b)   Lower than other systems
      (ii)   (c)   Optimal utilisation of available resources
      (iii) (a)   Differential Pricing
      (iv)   (d)   two activities share the same starting and ending node
      (v)   (d)   Routing
      (vi)   (a)   To determine the number of varieties that are to be manufactured
      (vii) (a)   Minimise the set up time
      (viii) (b)   ISO 9002
      (ix)   (c)   Purpose for which forecast is made
      (x)   (b)   Special machine tools and highly skilled labours

(b)

	Column 'A'		Column 'B'
a.	Normal Curve	iv.	Statistical Quality Control
b.	Stock level	vi.	Inventory Control
c.	Short Run Average Cost	ii.	Capacity planning
d.	Industrial Finance Corporation of India	i.	Project Funding
e.	Ranking Method	iii.	Job Evaluation
f.	Improvement in productivity	v.	Value Analysis

(c) (i) (F)
 (ii) (F)
 (iii) (F)
 (iv) (T)
 (v) (F)
 (vi) (T)

[Answer any three questions from the following]

2. (a) **What is operations management? Discuss the objectives of operations management.**

 (b) **A manager has to decide about the number of machines to be purchased. He has three options i.e., purchasing one, or two or three machines. The data are given below:**

Number of machine	Annual fixed cost	Corresponding range of output
One	₹12,000	0 to 300
Two	₹15,000	301 to 600
Three	₹21,000	601 to 900

 Variable cost is ₹20 per unit and revenue is ₹50 per unit

 (a) Determine the break-even point for each range

 (b) If projected demand is between 600 and 650 units, how many machines should the manager purchase? **[6+10=16]**

Answer:

2. (a) Operations management is the management of that part of an organization that is responsible for producing goods and/or services. Operations Management concerns with the conversion of inputs into outputs, using physical resources, so as to provide the desired utilities to the customer while meeting the other organizational objectives of effectiveness, efficiency and adoptability.

 OBJECTIVES OF OPERATIONS MANAGEMENT

 Objectives of operations management can be categorised into (i) Customer service and (ii) Resource utilisation.

 (i) Customer service

 The first objective is the customer service which means the service for the satisfaction of customer wants. Customer service is therefore a key objective of operations management.

The Operations Management must provide something to a specification which can satisfy the customer in terms of cost and timing. Thus, primary objective can be satisfied by providing the 'right thing at the right price at the right time'.

(ii) Resource Utilization

Another major objective is to utilize resources for the satisfaction of customer wants effectively, i.e., customer service must be provided with the achievement of effective operations through efficient use of resources. Inefficient use of resources or inadequate customer service leads to commercial failure of an operating system.

Operations management is concerned essentially with the utilization of resources, i.e., obtaining maximum effect from resources or minimizing their loss, under utilization or waste. The extent of the utilization of the resources' potential might be expressed in terms of the proportion of available time used or occupied, space utilization, levels of activity, etc. Each measure indicates the extent to which the potential or capacity of such resources is utilized. This is referred as the objective of resource utilization.

Operations management is also concerned with the achievement of both satisfactory customer service and resource utilization. An improvement in one will often give rise to deterioration in the other. Often both cannot be maximized, and hence a satisfactory performance must be achieved on both objectives. All the activities of operations management must be tackled with these two objectives in mind, and many of the problems will be faced by operations managers because of this conflict. Hence, operations managers must attempt to balance these basic objectives.

(b) (i) Break-even point
Let Q be the breakeven point.

FC = Fixed cost, R = Revenue per unit, VC = Variable cost
At, BEP, TR = FC + TVC

or, Revenue p.u × Q = FC + VC p.u. × Q

Q (R - VC) = FC

Q = FC/ R- VC

Let Q1 be the break-even-point for one machine option

Then, Q1= 12000 /(50 20) − = 12000/ 30 = 400 units

(Not within the range of 0 to 300)

Let Q2 be the break-even-point for two machines option.

Then, Q2 = 15000 /(50 20) − = 15000/30 = 500 units

(within the range of 301 to 600)

Let Q3 be the break-even-point for three machines option.

Then, Q3 = 21000/ (50- 20) = 21000/30 = 700 units
(within the range of 601 to 900)

(ii) The projected demand is between 600 to 650 units.
The breakeven point for single machine option (i.e., 400 units) is not feasible because it exceeds the range of volume that can be produced with one machine (i.e., 0 to 300).

Also, the breakeven point for 3 machines is 700 units which is more than the upper limit of projected demand of 600 to 650 units and hence not feasible. For 2 machines option the break even volume is 500 units and volume range is 301 to 600.

Hence, the demand of 600 can be met with 2 machines and profit is earned because the production volume of 600 is more than the break even volume of 500. If the manager wants to produce 650 units with 3 machines, there will be loss because the break even volume with three machines is 700 units. Hence, the manager would choose two machines and produce 600 units.

3. **(a) Discuss the characteristics of a good product design.**

   (b) How technological development affects industrial productivity? [9+7=16]

Answer:

3. **(a) Characteristics of Good Product Design**
   A good product design must ensure the following:

   (i) Function or performance: The function or performance is what the customer expects the product to do to solve his/her problem or offer certain benefits leading to satisfaction. For example, a customer for a motor bike expects the bike to start with a few kicks on the kick peddle and also expects some other functional aspects such as pick-up, maximum speed, engine power and fuel consumption etc.

   (ii) Appearance or aesthetics: This includes the style, colour, look, feel, etc. which appeals to the human sense and adds value to the product.

   (iii) Reliability: This refers to the length of time a product can be used before it fails. In other words, reliability is the probability that a product will function for a specific time period without failure.

   (iv) Maintainability: Refers to the restoration of a product once it has failed. High degree of maintainability is desired so that the product can be restored (repaired) to be used within a short time after it breaks down. This is also known as serviceability.

   (v) Availability: This refers to the continuity of service to the customer. A product is available for use when it is in an operational state. Availability is a combination of reliability and maintainability. High reliability and maintainability ensures high availability.

   (vi) Productibility: This refers to the ease of manufacture with minimum cost (economic production). This is ensured in product design by proper specification of tolerances, use of materials that can be easily processed and also use of economical processes and equipments to produce the product quickly and at a cheaper cost.

   (vii) Simplification: This refers to the elimination of the complex features so that the intended function is performed with reduced costs, higher quality or more customer satisfaction. A simplified design has fewer parts which can be manufactured and assembled with less time and cost. "

   (viii) Standardisation: Refers to the design activity that reduces variety among a group of products or parts. For example, group technology items have standardised design which calls for similar manufacturing process steps to be followed. Standard designs lead to variety reduction and results in economies of scale due

to high volume of production of standard products. However, standardised designs may lead to reduced choices for customers.

(ix)Specification: A specification is a detailed description of a material, part or product, including physical measures such as dimensions, volume, weight, surface finish etc. These specifications indicate tolerances on physical measures which provide production department with precise information about the characteristics of products to be produced and the processes and production equipments to be used to achieve the specified tolerances (acceptable variations).

Interchangeability of parts in products produced in large volumes (mass production and flow-line production) is provided by appropriate specification of tolerances to facilitate the desired fit between parts which are assembled together.

(x) Safety: The product must be safe to the user and should not cause any accident while using or should not cause any health hazard to the user. Safety in storage, handling and usage must be ensured by the designer and a proper package has to be provided to avoid damage during transportation and storage of the product. For example, a pharmaceutical product while used by the patient, should not cause some other side effect threatening the user.

(b) Technical factors including the degree of mechanisation, technical know-how, raw materials, layout and the methods and techniques of work determine the level of technological development in any industry. The principal factors in technological development affecting productivity are:

(a) **The Size of the Plant:** The size of the plant and the capacity utilisation has direct bearing on productivity. Production below or above the optimum level will be uneconomical and will tend towards lower level of productivity.

(b) **Research and Development:** Investment in research and development may yield better method of work and better design and quality of products.

(c) **Plant and Job Layout:** The arrangement of machines and positions in the plant and the set-up of the work-bench of an individual worker will determine, how economically and efficiently production will be carried out.

(d) **Machine and Equipment Design:** Whether the design of machinery and equipment is modern and in keeping with the limitations and capacities of the workers will also determine the production efficiency and level of productivity.

(e) **Production Processes:** Advanced production processes involving the use of modern integrated and automatic machinery and semi-processed materials have been known to help in raising levels of productivity.

(f) **Power, Raw Materials etc.** Improved quality of raw materials and increased use of power have a favourable effect on productivity.

g) **Scientific Management Techniques:** Scientific management techniques such as better planning of work, simplification of methods, time and motion study, emphasis for reduced wastage and spoilage have positive effects on productivity.

4. **(a) Priyanshu enterprise has three factories at locations A, B and C which supply three warehouses located at D,E and F. Monthly factory capacities are 10,80 and 15 units respectively. Monthly warehouse requirements are 75, 20 and 50 units respectively. Unit shipping costs (in ₹) are given in the following table:**

	To	D	E	F
	A	5	1	7
From	B	6	4	6
	C	3	2	5

The penalty costs for not satisfying demand at the warehouses D, E and F are ₹ 5, ₹ 3 and ₹2 per unit respectively. Determine the optimum distribution for Priyanshu, using any of the known algorithms.

(b) As a tool service centre the arrival rate is two per hour and the service potential is three per hour. Simple queue conditions exist.

The hourly wage paid to the attendant at the service centre is ₹1.50 per hour and the hourly cost of a machinist away from his work is ₹4.

Calculate:

(i) The average number of machinists being served or waiting to be served at any given time.

(ii) The average time a machinist spends waiting for service.

(iii) The total cost of operating the system for an eight – hour day.

(iv) The cost of the system if there were two attendants working together as a team, each paid ₹1.50 per hour and each able to service on average 2 per hour.

[10+6=16]

Answer:

4. **(a)** Here total monthly capacity of Factories A, B & C = 10 + 80 + 15 = 105 units

Also total monthly requirement of Warehouses D, E & F = 75 + 20 + 50 = 145 units

So supply ≠ Demand i.e. the problem is unbalanced. To make it balanced, we introduce a Dummy Factory having monthly capacity = 145 –105 = 40 units and unit cost of transportation to any warehouse from this Dummy is taken to be zero.

Sharing Initial Basic Feasible Solution (Optimal)

Warehouse / Factory	D	E	F	Capacity	Row Penalties 1	Row Penalties 2	Row Penalties 3	Row Nos. (u_i)
A	5 ②	1 ⑩	7 ④	~~10~~	4	4*	–	$u_1 = -3$
B	6 ㊿	4 ⑩	6 ⑩	~~80~~ ~~20~~ 10	2	2	2	$u_2 = 0$ (let)
C	3 ⑮	2 ①	5 ②	~~15~~	1	1	1	$u_3 = -3$
Dummy	0 ⓪	0 ②	0 ㊵	~~40~~	0	–	–	$u_4 = -6$
Requirement	~~75~~ 60	~~20~~ 10	~~50~~ 10					
Column Penlties 1	3	1	5*					
Column Penlties 2	2	1	1					
Column Penlties 3	3*	2	1					
Column Nos. (v_j)	$v_1 = 6$	$v_2 = 4$	$v_3 = 6$					

Here, m = No. of rows = 4 and n = No. of columns = 3

m + n – 1 = 4 + 3 – 1 = 6 = No. of cell allocations

So the solution is nondegenerate

Now Row Nos. (u_i) and Column Nos. (v_j) are calculated using the formula $C_{ij} = u_i + v_j$ for all the Allocated Cells. Also to start with, it is assumed that u2 = 0

Next, Opportunity Costs (Δ_{ij}) are calculated for all the Unallocated Cells using the formula $\Delta_{ij} = C_{ij} – (u_i + v_j)$ and written at the left bottom corner of the Unallocated Cells.

As $\Delta_{ij} \geq 0$, the solution is optimal.

Optimum Distribution Plan

From Factory	To Warehouse	Quantity (Units)	Cost/Unit (`)	Total (`)	
(1)	(2)	(3)	(4)	(5)=(3)x(4)	
A	E	10	1	10	Minimum total cost = 10 + 360 + 40 + 60 + 45 + 80 = ₹595
B	D	60	6	360	
	E	10	4	40	
	F	10	6	60	
C	D	15	3	45	
Dummy	F	40	2*	80	

This cost is the penalty for not meeting the demand of F.

b) Arrival rate = λ = 2 per hour
Service rate = μ = 3 per hour

(i) Average number of machinists being served or waiting to be served at any given time:

$$L_s = \frac{\lambda}{\mu - \lambda} = \frac{2}{3-2} = 2$$

(ii) Average Time a machinist spends waiting for the services:

$$W_q = \frac{\lambda}{\mu} \times \frac{1}{\mu - \lambda} = \frac{2}{3} \times \frac{1}{3-2} = 0.667 \text{ hours}$$

It means a machinist spends 40 minutes (i.e., 60 × 0.667) in the queue.

(iii) Average time in the system

$$W_s = \frac{1}{(\mu - \lambda)} = \frac{1}{3-2} = 1 \text{ hour}$$

Average number of machinists in the system = 2 [As per (i) above]

Cost of two machinists being away from work = ₹4 x 2 = ₹ 8.00 per hour

Attendant cost $\quad\quad\quad\quad\quad\quad\quad\quad\quad$ = 1.50 per hour
$\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ 9.50 per hour

Cost of 8- hour day = 8 hrs x 9.50 =₹ 76.00

(iv) It is assumed that there is still a single service point, but the average service rate with 2 attendants now is 4 per hour

Now λ = 2 per hour

μ = 4 per hour

Average number of machinists in the system = Ls = $\frac{\lambda}{\mu-\lambda} = \frac{2}{4-2} = 1$

Average time spent by a machinist in the system = Ws = $\frac{1}{\mu-\lambda} = \frac{1}{4-2} = \frac{1}{2}$ hour

Machinists cost = 1/2 hr x ₹ 4 =	₹ 2.00
Attendant cost(@1.50 per attendant x 2 attendants	₹ 3.00
Total Cost	₹ 5.00

Cost per 8 – hour day = ₹ 5 × 8 hrs. = ₹ 40.00

5. (a) **In a factory, there are six jobs to perform, each of which should go through two machines A and B, in the order AB. The processing timings (in hours) for the jobs are given here. You are required to determine the sequence for performing the jobs that would minimise the total elapsed time, T. What is the value of T?**

Job	Machine A	Machine B
1	7	3
2	4	8
3	2	6
4	5	6
5	9	4
6	8	1

(b) **An electric company which generates and distributes electricity conducted a study on the life of poles. The repatriate life data are given in the following table:**

Life data of electric poles

Year after installation:	1	2	3	4	5	6	7	8	9	10
Percentage poles failing:	1	2	3	5	7	12	20	30	16	4

If the company now installs 5,000 poles and follows a policy of replacing poles only when they fail, how many poles are expected to be replaced each year during the next ten years?

To simplify the computation assume that failures occur and replacements are made only at the end of a year.

If the cost of replacing individually is ₹160 per pole and if we have a common group replacement policy it costs ₹ 80 per pole, find out the optimal period for group replacement. **[7+9=16]**

Answer:

5. (a)

(i) The least of all the times given in the table is for job 6 on machine B. So, perform job 6 in the end. It is last in the sequence. Now delete this job from the given data.

(ii) Of all timings now, the minimum is for job 3 on machine A. So, do the job 3 first.

(iii) After deleting job 3 also, the smallest time of 3 hours is for job 1 on machine B. Thus, perform job 1 in the end (before job 6).

(iv) Having assigned job 1, we observe that the smallest value of 4 hours is shared by job 2 on machine A and job 5 on machine B. So, perform job 2 first and job 5 in the end.

(v) Now, the only job remaining is job 4, it shall be assigned the only place left in the sequence. The resultant sequence of jobs is, therefore, as follows:

3	2	4	5	1	6

This sequence is the optimal one. The total elapsed time, T, is obtained in Table as equal to 36 hours.

Table: Calculation of Total Elapsed Time (T)

Job	Machine A		Machine B	
	In	Out	In	Out
3	0	2	2	8
2	2	6	8	16
4	6	11	16	22
5	11	20	22	26
1	20	27	27	30
6	27	35	35	36

As shown in this table, the first job, job 3, starts at lime 0 on the machine A and is over by time 2, when it passes to machine *B* to be worked on till time 8. The job 2 starts on the machine *A* at time 2 as the machine is free at that lime. It is completed at time 6 and has to wait for 2 hours before it is processed on machine B, starting at time 8 when this machine is free, Similarly, the various jobs are assigned to the two machines and the in and out times are obtained.

(b) Chart showing Optimal Replacement Period

Average life of the pole - 1× 0.01 + 2 × 0.02 + 3 × 0.03 + 4 × 0.05 + 5 × 0.07 + 6 × 0.12 + 7 × 0.20 + 8 × 0.3 + 9 × 0.16 + 10 × 0.04 = 7.05 years.

No. of poles to be replaced every year = 5000/7.05 = 709

Average yearly cost on individual replacement = 709 × ₹160 = ₹ 1,13,440.

Group Replacement: Initial Cost = 5,000 × ₹ 80 = ₹ 4,00,000

Year	No. of poles to be replaced	Yearly cost of individual replacement @₹160/pole (₹)	Cumulative Cost of individual replacement (₹)	Total cost of individual replacement as well as group replacement (₹)	Average Annual Cost = Total Cost/Year (₹)
1	5,000x0.01=50	8,000	8,000	4,08,000	4,08,000
2	5,000x0.02+50x.01=101	16,160	24,160	4,24,160	2,12,080
3	5,000x0.03+50x0.02+101x0.01=152	24,320	48,480	4,48,480	1,49,493
4	5000x0.05+50x0.03+101x0.02+152x0.01=256	40,960	89,440	4,89,440	1,22,360
5	5,000x0.07+50x0.05+101x0.03+152x0.02+256x0.01=362	57,920	1,47,360	5,47,360	1,09,472
6	5,000x1.2+50x0.007+101x0.05+152x0.03+256x0.02+362x0.01=6023	9,63,680	11,11,040	15,11,040	2,51,840

Optimal replacement at the end of the 5th year.

Section – II: (Strategic Management)

6. Choose the correct answer from the given alternatives: 1x6=6

(i) **New entrants to an industry are more likely when.**
(a) It is difficult to gain access to distribution channels
(b) Economies of scale in the industry are high
(c) Product differentiation in the industry is low
(d) Capital requirement in the industry are high

(ii) **Typically Profits are highest in which stage of the industry life-cycle ?**
(a) Introduction
(b) Growth
(c) Maturity
(d) Decline

(iii) **A Question Mark in BCG Matrix is an investment, which**
(a) Yields low current income but has bright growth prospects.
(b) Yields high current income and has bright growth prospects.
(c) Yields high current income and has bleak growth prospects.
(d) Yields low current income and has bleak growth prospects

(iv) **A supplier group is powerful if**
(a) It is not concentrated
(b) Offers unique products
(c) Its customers can backward integrate
(d) There are no switching costs

(v) **The strategy which concentrates around a production market is:**
(a) Vertical Integration
(b) Niche
(c) Horizontal Expansion
(d) Diversification

(vi) **The reason for failure of Strategic Management may be ascribed to**
(a) Over-estimation of resource competence
(b) Failure to obtain senior management commitment
(c) Failure to obtain employee commitment
(d) All of the above

Answer:

6. (i) (c) Product differentiation in the industry is low
(ii) (b) Growth
(iii) (a) Yields low current income but has bright growth prospects
(iv) (b) Offers unique products
(v) (b) Niche
(vi) (d) All of the above

[Answer any two questions from the following]

7. **(a) Discuss the differences between objectives and goals.**

   (b) What are the factors influencing portfolio strategy?   **[4+8=12]**

Answer:

7. (a) The difference between objectives and goals may be drawn in terms of the following four dimensions.

1. **Time Frame.** Objectives are timeless, enduring, and unending; goals are temporal, time-phased, and intended to be superseded by subsequent goals. Because objectives relate to' the ongoing activities of an organisation, their achievement tends to be open-ended in the sense of not being bounded by time. For example, the survival objective of a business organisation is never completely attained since failure is always a future possibility.

2. **Specificity.** Objectives are stated in broad, general terms, dealing with matters of image, style, and self-perception. These are aspirations to be worked in the future. Goals are much more specific, stated in terms of a particular result that will be accomplished by a specific date. In the above example, survival as an objective is not very specific because it leads to different interpretation of the stale of survival. On the other hand, goals can be expressed in terms of say achievement of 10 per cent growth in the net sales in the next year. This is more specific and time bound.

3. **Focus.** Objectives are usually stated in terms of some relevant environment which is external to the organisation; goals are more internally focused and carry important implications about how resources of the organisation are utilised or will be utilised in future. Therefore, objectives are more generalised statements like maintaining market leadership, striving continuously for technological superiority, etc. A goal may imply a resource commitment requiring the organisation to use those resources in order to achieve the desired outcomes.

4. **Measurement.** Both objectives and goals can be stated in terms which are quantitatively measured but the character of measurement is different. Generally, quantitative objectives are set in relative terms. For example, Reliance Textiles has put it's objectives like this: to acquire top position among the Indian companies. This objective may not be achieved in any one year, but it is timeless and externally focused, providing a continuing challenge for the company. Quantitative goals are expressed in absolute terms. For example, a company has stated it's goal to achieve 10 per cent growth in it's sales in the next year. The achievement of this goal can be measured irrespective of environmental conditions and competitors' actions.

(b) There are number of factors - historical, personal, strategic, environmental etc. which influence portfolio strategy. Such factors are given below:

1. **Mission/Vision:** The mission of the company is one of the most important factors which influence, the portfolio strategy because the mission defines the scope and purpose of the company. Formulation of clear vision about the future has let to restricting the portfolio companies like Glaxo.

2. **Value system:** A factor very much complimentary to the mission that influences the portfolio strategy is the value system of the promoters or major stock holders. After the Murugappa group took over the EID Parry, the liquor business of the EID Parry group was sold off as the Murugappa group management felt that it was unethical to be in the liquor business.

3. **Future of Current Business:** The future prospects of the current business are a very important factor influencing the portfolio strategy. If a current business, particularly the most important one, has a bleak future a company would be tempted to divest or diversify into growing business. Having felt that the future of the tobacco business would be very bleak, the ITC diversified into speciality paper, packaging and printing, hotels, agribusiness, financial services and international business etc. and today the non-tobacco businesses contribute a considerable share of the total turnover of ITC. (Some of these diversifications, however, have not been successful, and the company has, therefore, decided to concentrate more on its core business-tobacco).

4. **Position on the Portfolio Matrix/PLC:** The position of different business on the product portfolio life cycle also may influence the portfolio strategy of a company. Products in the declining stage may be dropped. Similarly some of the dogs or question marks could also be eligible candidates for divestment. Several Indian companies, like the Ceat, have decided to drop businesses which are peripheral or which are not important in terms of business volume or are not otherwise satisfactory in terms of performance and which do not hold out promises for the future of the company. They have adopted the strategy of focusing on the core business (es).

5. **Government Policy:** Government policy sometimes is an important determinant of portfolio strategy. The pre- 1991 regulatory regime did not permit many companies, particularly large ones and foreign firms, to pursue the type of growth and diversification strategies they would have followed in an environment of business freedom, resulting in distorted portfolios. The liberalisation has very significantly transformed the environment. The grant of more autonomy to the Navarathnas has provided them with considerable leeway for charting out their future growth.

6. **Competitive Environment:** The competitive environment too has its influence on the portfolio strategy of many companies. When competition is absent or limited, as in a protected market, even firms which are inefficient may be able to thrive. The protection itself may prompt firms to enter such business.

   However, as the market becomes competitive, as has been happening in India because of the liberalisation, things may undergo drastic changes. Many firms which survived or flourished in the protected regime would not be able to survive the competition. Further, for various reasons mentioned under the Case for Focusing, it would become necessary to focus on the core business.

7. **Company Resources:** The resources and strengths of the company, undoubtedly, are important factors influencing the 'portfolio strategy'.

8. **Supply/Demand Conditions:** Problems with input supplies may encourage backward integration. Similarly, problems with marketing the output, or advantages of value addition, may encourage forward integration. When products or services can be obtained cheaply/ more efficiently from outside, it may encourage the dropping of such business and dependence on outside sources.

8. (a) **State the benefits of Contingency Planning.**

   (b) **State the various advantages and disadvantages of SBU structure.**   **[6+6=12]**

Answer:

8. (a) Benefits of Contingency Planning
   (i) It will make the future through their proactive planning and advanced preparation.
   (ii) It will introduce original action by removing present difficulties.
   (iii) It enables to anticipate future problems.
   (iv) It will change the goals to suit internal and external changes.
   (v) It experiments with creative ideas and take initiative.
   (vi) It will attempt to shape the future and create a more desirable environment.
   (vii) It permits quick response to change,
   (viii) It prevents panic in crisis situations.
   (ix) It makes managers more adaptable to unforeseen changes

(b) Advantages of SBU structure:
   (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 of SBU structure:
   (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: **[4x3=12]**

   (a) Marketing Objectives

   (b) Mc Kinsey's 7 –s Frame work

   (c) Expected Results from BPR.

   (d) Corporate Planning

Answer:

9. (a) Marketing Objectives:

   (i) Creating awareness and appreciation of the crucial role of consumer in shaping decisions, and of the profit as a basic foundation of corporate existence, stability and growth.
   (ii) Awareness that consumers can only be helped to solve their problems through corporate efforts.
   (iii) Awareness and concern with trans-departmental implications of an individual department's decisions and actions and their effect on the firm's equilibrium with its external environment— consumers, competitors, government, etc.
   (iv) Concern with, and interest in, the innovation of products and services so as to solve select consumer problems.
   (v) Concern with the effect of new product and service introduction on firm's present and potential profit position.
   (vi) Sensing and monitoring information as regards market potential to serve as a base for goal and target setting.

(vii) Focus in coordinating company effort and in establishing corporate and departmental objectives consistent with the enhancement of the firm's profit position.

(viii) Awareness and appreciation of the role of formal, periodic, short and long-range planning of company's goals, strategies and tactics resulting in an integrated system of marketing actions.

(ix) Desire and preparedness for the creation, expansion, contraction, termination, or in any way, restructuring of any corporate function in order to mobilize, utilize and control corporate effort.

(b) McKinsey's 7-S Framework:
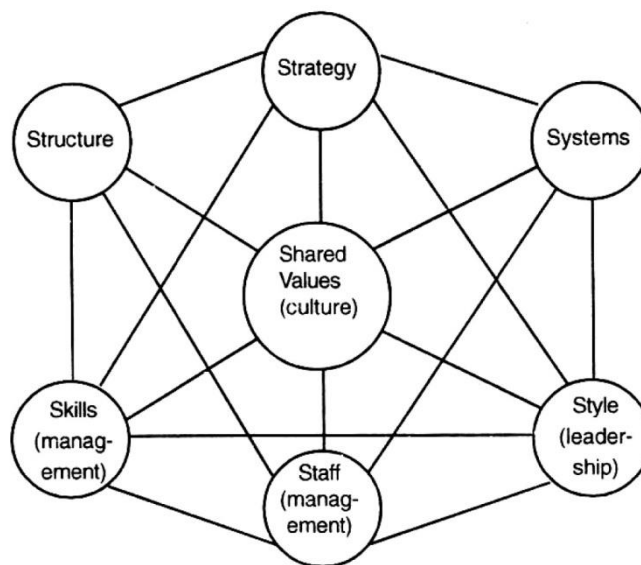
McKinsey's 7-S Framework

Strategy is dependent on many variables – Internal as well as external. All factors are interrelated.

The Mckinsey Company, a well known management consultancy firm in the United States, towards the end of 1970s was asked to find a solution to this knotty issue. The researchers Peters and Waterman found after examining America's best run companies that the problem in strategy lay in its implementation and structure was only one lever in the hands of management. The other levers were systems, staff, style, skills and superordinate goals. A strategy is usually successful when the other S's in the 7-S framework fit into or support the strategy.

➢ **Strategy:** A set of decisions and actions aimed at gaining a sustainable competitive advantage.

➢ **Structure:** The organisation chart and associated information that shows who reports to whom and how tasks are both divided and integrated.

➢ **Systems:** The flow of activities involved in the daily operation of a business, including its core processes and its support systems.

➢ **Style:** How managers collectively spend their time and attention and how they use symbolic behaviour. How management acts is more important than what management says.

> **Staff:** How companies develop employees and shape basic values.
> **Shared Values:** Commonly held beliefs, mindsets and assumptions that shape how an organisation behaves— its corporate culture.
> **Skills:** An organisation's dominant capabilities and competencies.

(c) Expected Results from BPR:

The expected results for a company that implements business process reengineering are the following:

- Reallocation of jobs and processes so as to be combined into fewer, to be executed in natural order, simultaneously and by the least possible number of employees.
- Reorganization of the company's structure (downsizing) and employee empowerment.
- Jobs and processes become flexible so as to be executed according to the needs of each case, company's and customer's need's (hybrid centralized / decentralized operations)

The above changes will bring reductions of costs in the company, better quality (as far as price, promptness of delivery and offerings of related services) in the products and services provided to the customers. BPR shows that there is 'more than one way to skin a cat' and enables a fresh view without ingrained prejudice affecting judgement. It can produce huge initial savings where a business is struggling and often has the affect of turning around an unprofitable operation. Also, it leaves the business with a fully documented model of the operation, which is invaluable if embarking on a quality programme.

The expected outcome from a successful BPR process should the desired one for the favor of the business concerned. The dramatic changes that are caused involve people's jobs and working relationships as it is very often that jobs are eliminated and the entire process is not as beneficial for all.

(d) Corporate Planning:

It is concerned with determination of objectives treating the company as a whole. It develops means to achieve the company's overall objectives. The corporate plans may relate to achieve corporate objectives for short-run and/or long-run. It is an integrated systems approach considering different functions, divisions and units of the organization. Such corporate plans are framed at the corporate level by the top management.

Corporate planning is not synonymous with long range planning. Corporate planning is concerned with both short periods as well as long periods. The time span depends on how far ahead a company wants to forecast, depends on nature of business and depends on commitment of resources required for it. Corporate planning in an engineering firm will involve long-term considerations but it will have short-term consideration in case of textile firm. Long range planning necessarily connotes planning with a long time horizon, generally five years or more.

Corporate planning is associated with long range planning in labour intensive industries. Corporate planning is concerned with the existing products in existing markets as well as new products and new markets. Long-range planning takes care of only the existing products in existing markets.