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) To decide work load for men and machines:
(a) Medium range forecasting is used,
(b) Short term forecasting is used,
(c) Long range forecasting is used,
(d) A combination of long range and medium range forecasting is used

(ii) Most suitable layout for Continuous production is:
(a) Line layout,
(b) Process Layout,
(c) Group technology,
(d) Matrix layout.

(iii) Generally in continuous production the production is carried out to:
(a) Customer's order,
(b) Government orders only,
(c) For stock and supply,
(d) Few rich customers

(iv) The cycle time, selected in balancing a line must be:
(a) Must be greater than the smallest time element given in the problem,
(b) Must be less than the highest time element given in the problem,
(c) Must be slightly greater than the highest time element given in the problem,
(d) Left to the choice of the problem solver.

(v) The difference between product system and project system is:
(a) Project system the equipment and machinery are fixed where as in product system they are movable,
(b) In Product system the machinery and equipment are fixed and in project system they are not fixed,
(c) Project system produces only standardized products and product system produces only unstandardised products,
(d) Products cannot be stocked whereas projects can be stocked.

(vi) In an organisation the production planning and control department comes under :
(a) Planning department
(b) Manufacturing department
(c) Personal department
(d) R & D department

(vii)In general, medium range forecasting period will be approximately:

(a) 5 to 10 Years,
(b) 2 to 3 days,
(c) 3 to 6 months,
(d) 10 to 20 years

(viii)The method used in scheduling a project is:

(a) A schedule of breakdown of orders,
(b) Outline Master Programme,
(c) PERT & CPM,
(d) Schedule for large and integrated work.

(ix) Z-chart can be used to show:

(a) Process used in production,
(b) Quality level of the product,
(c) Both the plan and the performance, and deviation from the plan,
(d) To show cost structure of the product.

(x) One of the aims of loading is:

(a) To finish the job as early as possible,
(b) To minimise the material utilisation,
(c) To improve the quality of product,
(d) To keep operator idle time, material waiting time and ancillary machine time at minimum.

(b) Match the following: [6×1=6]

	Column 'A'		Column 'B'
a.	Materials Requirement Planning	i.	Quality Control
b.	Programme Evaluation and Review Technique	ii.	Cost Control
c.	Average Outgoing Quality	iii.	Product mix determination
d	Methods Time measurement	iv.	Inventory management
e.	Linear Programming	v.	Project planning
f.	Value Analysis	vi.	Work measurement

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

(i) It is desirable to conduct work measurement after Method study.

(ii) In carrying out Job Evaluation studies, point system is the best method.

(iii) If the total float value is zero, it means the resources are just sufficient to complete the activity without delay.

(iv) Incentives are substitute for lower wages.

(v) Personnel Manager has nothing to do with productivity. It is the job of Technical Personnel.

(vi) Ranking is one of the Job Evaluation Techniques.

Answer:

1. (a) (i) (b) Short term forecasting is used,
(ii) (a) Line layout
(iii) (c) For stock and supply
(iv) (c) Must be slightly greater than the highest time element given in the problem
(v) (b) In Product system the machinery and equipment are fixed and in project system are not fixed.
(vi) (b) Manufacturing department
(vii) (c) 3 to 6 months
(viii) (c) PERT & CPM
(ix) (c) Both the plan and the performance, and deviation from the plan
(x) (d) To keep operator idle time, material waiting time and ancillary machine time at minimum.

(b)

	Column 'A'		Column 'B'
a.	Materials Requirement Planning	iv.	Inventory management
b.	Programme Evaluation and Review Technique	v.	Project planning
c.	Average Outgoing Quality	i.	Quality Control
d.	Methods Time measurement	vi.	Work measurement
e.	Linear Programming	iii.	Product mix determination
f.	Value Analysis	ii.	Cost Control

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

[Answer any three questions from the following]

2. (a) Discuss some recent trends in operations management.

(b) An investigation into the demand for colour TV sets in 5 towns has resulted in the following data:

Population of the town(in lakhs)	**X:**	**5**	**7**	**8**	**11**	**14**
No of TV sets demanded(in thousands)	**Y:**	**9**	**13**	**11**	**15**	**19**

Fit a linear regression of Y on X and estimate the demand for CTV sets for two towns with population of 10 lakhs and 20 lakhs. 6+10=16

Answer:

2. (a) Recent trends in production/operations management relate to global competition and the impact it has on manufacturing firms. Some of the recent trends are:

1. **Global Market Place**: Globalisation of business has compelled many manufacturing firms to have operations in many countries where they have certain economic advantage. This has resulted in a steep increase in the level of competition among manufacturing firms throughout the world.
2. **Production/Operations Strategy**: More and more firms are recognising the importance of production/ operations strategy for the overall success of their business and the necessity for relating it to their overall business strategy.
3. **Total Quality Management (TQM)**: TQM approach has been adopted by many firms to achieve customer satisfaction by a never-ending quest for improving the quality of goods and services.
4. **Flexibility**: The ability to adapt quickly to changes in volume of demand, in the product mix demanded, and in product design or in delivery schedules, has become a major competitive strategy and a competitive advantage to the firms. This is sometimes called as agile manufacturing.
5. **Time Reduction**: Reduction of manufacturing cycle time and speed to market for a new product provide competitive edge to a firm over other firms. When companies can provide products at the same price and quality, quicker delivery (short lead times) provide one firm competitive edge over the other.
6. **Technology**: Advances in technology have led to a vast array of new products, new processes and new materials and components. Automation, computerisation, information and communication technologies have revolutionised the way companies operate. Technological changes in products and processes can have great impact on competitiveness and quality, if the advanced technology is carefully integrated into the existing system.

(b) Computation of trend values

Population (in lakhs)	Sales of CTV (in thousands)	Squares of the population	Product of population and sales of colour TV
X	**Y**	**X^2**	**XY**
5	9	25	45
7	13	49	91
8	11	64	88
11	15	121	165
14	19	196	266
$\Sigma X = 45$	$\Sigma y = 67$	$\Sigma X^2 = 455$	$\Sigma XY = 655$

Regression equation of Y on X

$Y = a + bX$

To find the values of a and b, the following two equations are to be solved

$\Sigma Y = na + b\Sigma X$ ... (i)

$\Sigma XY = a\Sigma X + b\Sigma X2$ ... (ii)

By putting the values we get
67 = 5a + 45b ... (iii)
655 = 45a + 455b ... (iv)

Multiplying equation (iii) by 9 and putting it as no. (v) we get,
603 = 45a + 405b ... (v)

By deducting equation (v) from equation (iv); we get 52 = 50b
b = 52 /50 = 1.04

By putting the value of b in equation (iii), we get
we get 67 = 5a + 45 × 1.04
or, 67 = 5a + 46.80
or, 67-46.80 = 5a
or, 5a = 20.20
or, a = 20.20 /5
or a = 4.04

Now by putting the values of a and b the required regression equation of Y on X, is
Y = a + bX or, Y = 4.04+1.04X

When X = 10 lakhs than Y = 4.04 + 1.04 (10)
or, Y = 4.04 + 10.40 or 14.44 thousand CTV sets.

Similarly for town having population of 20 lakhs, by putting the value of X = 20 lakhs in regression equation
Y = 4.04 + 1.04 (20)
= 4.04 + 20.80 = 24.84 thousands CTV sets.

Hence expected demand for CTV for two towns will be 14.44 thousand and 24.84 thousand CTV sets.

3. (a) Discuss the stages of product life cycle.

(b) What is TQM? What are the underlying principles in TQM? 8+8=16

Answer:

3. (a) Products, like men, are mortal. They flourish for a time, then decline and die. The life cycle of a product has many points of similarity with the human life cycle. A product is born, grows lustily, attains a dynamic maturity, then enters its declining years. The stages taken together are referred, to as "the product life cycle". This life cycle of the product comprises of four stages: Introduction, Growth, Maturity and Decline.

The **introduction stage** is preceded by 'production planning and development'. This period requires greater investment. This investment should be gradually recouped as the sales pick up. The concept of life cycle would give the management an idea as to the time within which the original investment could be recouped.

After testing, a product enters the introduction stage and the product will then become available in the national market. Sales would begin gradually as potential buyers come to know about the product through advertising and other selling techniques. But the profits will be low as part of the investment is to be recouped besides heavy expenditure on selling.

In the **growth stage**, both sales and profits will begin to increase. It is here that similar other new products begin to appear in the market as substitutes and offer competition. The management, therefore, should try to change its approach by changing its strategy from "buy my product" to "try my product". At the end of this stage, the distribution arrangement is likely to get completed and the prices, if necessary, are reduced a little.

The third stage is the **maturity stage**. During this stage the manufacturers introduce new models or adopt methods such as trading-in, etc., to promote the sale of their brands with a view to retaining their position in the market. The number of buyers will continue to grow, but more slowly. In economic terms this is the stage where supply exceeds demand. Some of the promotional efforts may lengthen the span of this stage but they will not offer a permanent solution.

At the final stage of **decline**, profit margins touch a low level, competition becomes severe and customers start using newer and better products. It is here that the story of a product ends-a natural but hard end.

The above discussion concentrates only on the life cycle of a product, beginning with its introduction into the market (i.e., post-marketing). But a series of processes are to be undertaken by the management prior to the introduction of a product. The diagram given above is presented in an enlarged form to incorporate the pre-introduction (or pre-marketing) stages also.

(b) TQM is a philosophy that involves everyone in an organisation in a continual effort to improve quality and achieve customer satisfaction. TQM is Japanese approach to quality. The term TQM refers to a quest-for quality in an organization. TQM is a process that underlines three philosophies. One is never-ending push to improve, which is referred to as continuous improvement; the second is the involvement of every employee in the organization and the third is the goal for customer satisfaction, which means meeting or exceeding customer expectations. It often focuses on benchmarking world-class standards, product and service design and purchasing.

Underlying Principles in TQM:

1. Strive for quality in all things (Total Quality)
2. The customer is the creation of quality
3. Improve the process or systems by which products are produced
4. Quality improvement is continuous, never ending activity (continuous improvement - Kaizen)
5. Worker involvement is essential
6. Ground decisions and actions on knowledge
7. Encourage team work and cooperation.

4. (a) Four jobs can be processed on four different machines, with one job on one machine. Resulting profits vary with assignments. They are given below:

		MACHINES			
		A	B	C	D
JOBS	I	42	35	28	21
	II	30	25	20	15
	III	30	25	20	15
	IV	24	20	16	12

Find the optimum assignment of jobs to machines and the corresponding profit.

(b) A Small retailer has studied the weekly receipts and payments over the past 200 weeks and has developed the following set of information:

Weekly Receipts (₹)	Probability	Weekly Payments (₹)	Probability
3,000	0.20	4,000	0.30
5,000	0.30	6,000	0.40
7,000	0.40	8,000	0.20
12,000	0.10	10,000	0.10

Using the following set of random numbers, simulate the weekly pattern of receipts and payments for the 12 weeks of the next quarter, assuming further that the beginning bank balance is ₹ 8000. What is the estimated balance at the end of the 12 weekly period? What is the highest weekly balance during the quarter? What is the average weekly balance for the quarter?

Random Numbers

For Receipts	03	91	38	55	17	46	32	43	69	72	24	22
For Payments	61	96	30	32	03	88	48	28	88	18	71	99

According to the given information, the random number interval is assigned to both the receipts and the payments. **8+8=16**

Answer:

4. (a) Relative Loss Matrix

M/cs / jobs	A	B	C	D
I	0	7	14	21
II	12	17	22	27
III	12	17	22	27
IV	18	22	26	30

As this is a problem of Maximisation, the same is converted to one of Minimisation by firming a Relative Loss Matrix where all the elements of the given matrix are subtracted from the highest element of the matrix (which is 42 in this case)

Matrix after Row Operation

M/cs / Jobs	A	B	C	D
I	0	7	14	21
II	0	5	10	15
III	0	5	10	15
IV	0	4	8	12

Matrix after Column Operation

M/cs / Jobs	A	B	C	D	
I	0	3	6	9	Here minimum no. of horizontal and vertical straight lines to cover all the zeros = 2 ≠ Order of the matrix (4) So the solution is non optimal.
II	0	1	2	3	
III	0	1	2	3	
IV	0	0	0	0	

Improved Matrix (Non Optimal)

M/cs / Jobs	A	B	C	D	
I	0	2	5	8	Here minimum no. of horizontal and vertical straight lines to cover all the zeros = 3 ≠ Order of the matrix (4) So the solution is non optimal.
II	0	0	1	2	
III	0	0	1	2	
IV	1	0	0	0	

Further Improved Matrix [Optimal Solution (i)]

M/cs / Jobs	A	B	C	D	
I	∩	2	4	7	Here minimum no. of horizontal and vertical straight lines to cover all the zeros = 4 = Order of the matrix. So the solution is optimal.
II	0	0	0	1	
III	0	0	∩	1	
IV	2	1	0	0	

Assignment as per Solution (i)			Assignment as per Solution (ii)		
Jobs	M/cs	Profit(₹)	Jobs	M/cs	Profit(₹)
I	A	42	I	A	42
II	B	25	II	B	20
III	C	20	III	C	25
IV	D	12	IV	D	12
Total	-	₹99	Total	-	₹99

Further Improved Matrix (Optimal Solution-ii)

M/cs / Jobs	A	B	C	D
I	0	2	4	7
II	0	0	∩	1
III	0	∩	0	1

IV	2	1	~~0~~	0

(b)

Range of random numbers							
Receipt (₹)	**Probability**	**Cumulative Probability**	**Range**	**Payments (₹)**	**Probability**	**Cumulative probability**	**Range**
3,000	0.20	0.20	00-19	4,000	0.30	0.30	00-29
5,000	0.30	0.50	20-49	6,000	0.40	0.70	30-69
7,000	0.40	0.90	50-89	8,000	0.20	0.90	70-89
12,000	0.10	1.00	90-99	10,000	0.10	1.00	90-99

Simulation of Data for a period of 12 weeks					
Week	**Random No. for receipt**	**Expected Receipt (₹)**	**Random No. for payment**	**Expected Payment (₹)**	**Week end Balance (₹)**
Opening Balance					**8,000**
1	03	3,000	61	6,000	5,000 (8000+3000-6000)
2	91	12,000	96	10,000	7,000
3	38	5,000	30	6,000	6,000
4	55	7,000	32	6,000	7,000
5	17	3,000	03	4,000	6,000
6	46	5,000	88	8,000	3,000
7	32	5,000	48	6,000	2,000
8	43	5,000	28	4,000	3,000
9	69	7,000	88	8,000	2,000
10	72	7,000	18	4,000	5,000
11	24	5,000	71	8,000	2,000
12	22	5,000	99	10,000	(3,000)

Estimated balance at the end of 12th week = ₹ (3,000)

Highest balance = ₹ 7,000

Average balance during the quarter = 45,000/12 = ₹ 3,750

5. (a) A project has the following time schedule

Activity	**1-2**	**1-3**	**1-4**	**2-5**	**3-6**	**3-7**	**4-6**	**5-8**	**6-9**	**7-8**	**8-9**
Time (months)	**2**	**2**	**1**	**4**	**8**	**5**	**3**	**1**	**5**	**4**	**3**

Construct a PERT network and compute

- **Critical path and its duration**
- **Total float for each activity**

Also, find the minimum number of cranes the project must have for its activities 2-5, 3-7, 5-8 and 8-9 without delaying the project given that one crane is sufficient to carry out the work involved in each activity if taken care of individually.

(b) A firm is using a machine whose purchase price is ₹ 15,000. The installation charges amount to ₹ 3,500 and the machine has a scrap value of only ₹ 1,500 because the firm has a monopoly of this type of work. The maintenance cost in various years is given in the following table:

Year	1	2	3	4	5	6	7	8	9
Maintenance Cost(₹)	260	760	1,100	1,600	2,200	3,000	4,100	4,900	6,100

The firm wants to determine after how many years should the machine be replaced on economic considerations, assuming that the machine replacement can be done only at the year end. 9+7=16

Answer:

5. (a) Steps:

1. Moving forward, find EF times (choosing the Maximum at activity intersection)
2. Maximum EF = LF = Critical Path Time.
3. Return path find LF (Choosing the Minimum at activity intersection)
4. Note LF, EF from network (except activity intersections)

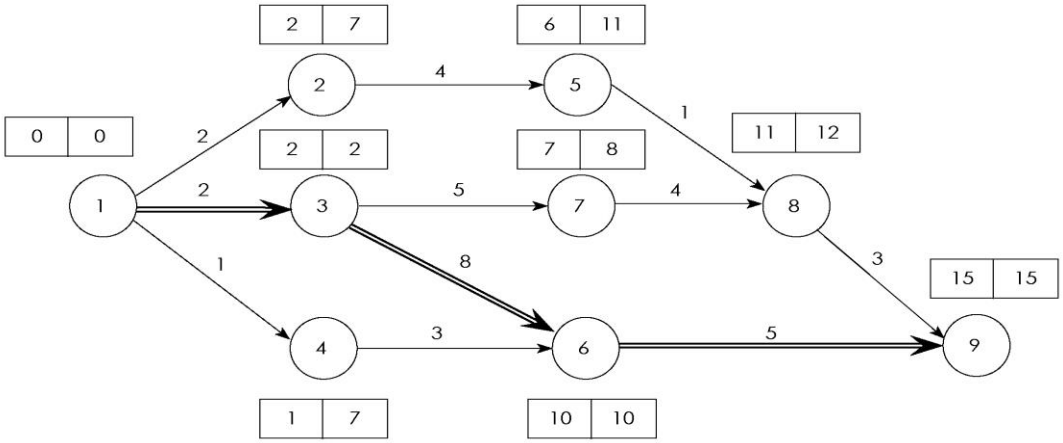

Table: Activity Relationship

Activity	Duration Months (tij)	Earliest Start (ESij)	Earliest Finish (EFij = ESij + tij)	Latest Start (LSij = LFij – tij)	Latest Finish (LFij)	Total Float (TFij = LSij + ESij = LEij – EFij)
1-2	2	0	2	5	7	5
1-3	2	0	2	0	2	0
1-4	1	0	1	6	7	6
2-5	4	2	6	7	11	5
3-6	8	2	10	2	10	0
3-7	5	2	7	3	8	1
4-6	3	1	4	7	10	6
5-8	1	6	7	11	12	5
6-9	5	10	15	10	15	0

7-8	4	7	11	8	12	1
8-9	3	11	14	12	15	1

Critical path is 1-3-6-9 with duration 15 months

(b) Cost of machine, C = ₹ 15,000 + ₹ 3,500 = ₹ 18,500

Scrap value, S = ₹1,500.

Year	Maintenance Cost, M1 (₹)	Cumulative Maintenance Cost, ΣM1 (₹)	Cost of Machine – Scrap Value (₹)	Total Cost T(n) (₹)	Annual Cost A(n) (₹)
(i)	(ii)	(iii)	(iv)	(v)=(iii)+(iv)	(vi)=(v)/n
1	260	260	17,000	17,260	17,260
2	760	1,020	17,000	18,020	9,010
3	1,100	2,120	17,000	19,120	6,373
4	1,600	3,720	17,000	20,720	5,180
5	2,200	5,920	17,000	22,920	4,584
6	3,000	8,920	17,000	25,920	4,320
7	4,100	13,020	17,000	30,020	4,288*
8	4,900	17,920	17,000	34,920	4,365
9	6,100	24,020	17,000	41,020	4,557

Lowest average cost is ₹ 4,288 approx., which corresponds to n = 7 in above table. Thus machine needs to be replaced every 7th year.

Section – II: (Strategic Management)

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

(i) The essential ingredients of Business Process Re-engineering are:
- **(a) Continuous improvements of products, processes and technologies.**
- **(b) Advanced planning in the areas of technologies, processes and strategic partnerships etc.**
- **(c) Fundamental rethinking and radical redesign of business process to achieve dramatic results.**
- **(d) Generation, comparison and evolution of many ideas to find out one worthy of development.**
- **(e) Identification and selection of layouts most suited for products and processes**

(ii) Innovation strategy is:
- **(a) defensive strategy**
- **(b) offensive strategy**
- **(c) responding to or anticipating customer and market demands**
- **(d) guerrilla strategy**
- **(e) harvesting strategy**

(iii) The Product Market matrix comprising of Strategies of Penetration, Market Development Product Development and Diversification was first formulated by

(a) Ansoff
(b) Drucker
(c) Porter
(d) Andrews
(e) Prahlad

(iv) Outsourcing is the
(a) Spinning off of a value-creating activity to create a new firm
(b) Selling of a value-creating activity to other firms
(c) Purchase of a value-creating activity from an external supplier
(d) Use of computers to obtain value-creating data from the Internet

(v) Successful 'differential strategy' allows a company to
(a) Gain buyer loyalty to its brands
(b) Charge too high a price premium
(c) Have product quality that exceeds buyers' needs
(d) Depend only on intrinsic product attributes.

(vi) Risk Management Strategies are
(a) Avoid Risk, Reduce Risk, Retain Risk, Combine Risk
(b) Transfer Risk, Share Risk and Hedge Risk
(c) Both (A) and (B)
(d) None of the above.

Answer:

6. (i) (c) Fundamental rethinking and radical redesign of business process to achieve dramatic results.
(ii) (c) responding to or anticipating customer and market demands
(iii) (a) Ansoff
(iv) (c) Purchase of a value-creating activity from an external supplier
(v) (a) Gain buyer loyalty to its brands
(vi) (c) Both (A) and (B)

[Answer any two questions from the following]

7. (a) Discuss the major steps in Strategic Management Process.

(b) Enumerate some Corporate Weaknesses. [6+6=12]

Answer:

7. (a) Steps of Strategic Management Process:

Step 1: Identifying Defining Business Mission, Purpose and Objectives: Identifying or defining an organisation's existing mission, purpose and objectives is the logical starting point as they lay foundation for strategic management. Every organisation has a mission, purpose and objectives, even if these elements are not consciously designed, written & communicated. These elements relate the organisation with the society and states that it has to achieve for itself and to the society.

Step 2: Environmental Analysis: Environmental factors — both internal environment and external environment — are analysed to:

(i) identify changes in the environment,

(ii) identify present and future threats and opportunities, and

(iii) assess critically it's own strengths and weaknesses.

Organisational environment encompasses all factors both inside and outside the organisation that can influence the organisation positively and negatively. Environmental factors may help in building a sustainable competitive advantage.

Step 3: Revise Organisational Direction: A thorough analysis of organisation's environment pinpoints it's strengths, weaknesses, opportunities and threats (SWOT). This can often help management to reaffirm or revise it's organisational direction.

Step 4: Strategic Alternatives and Choice: Many alternative strategies are formulated based on possible options and in the light of organisational analysis and environmental appraisal. Alternative strategies will be ranked based on the SWOT analysis. The best strategy out of the alternatives will be chosen.

The steps from identification of business mission, purpose and objectives of alternative strategies and choice can be grouped into the broad step of strategy formulation.

Step 5: Strategy Implementation: The fifth step of strategic management process is the implementation of strategy. The logically developed strategy is to be put into action. The organisation can not reap the benefits of strategic management, unless the strategy is effectively implemented.

The managers should have clear vision and idea about the competitor's strategy, organisation's culture, handling change, skills of the managers-in-charge of implementation and the like. The progress from the stage of identification of business mission, purpose and objectives to the stage of achieving desired performance must overcome many obstacles.

Step 6: Strategic Evaluation and Control: The final step of strategic management process is strategic evaluation and control. It focuses on monitoring and evaluating the strategic management process in order to improve it and ensure that it functions properly. The managers must understand the process of strategic control and the role of strategic audit to perform the task of control successfully.

(b) Corporate Weaknesses:

Similar to Corporate strengths, there may be corporate weaknesses too. These may be enumerated as under:

(i) Under-utilisation of capacity due to economic slump

(ii) High debt burden in the capital structure

(iii) Poor product-mix

(iv) Lack of managerial strengths

(v) Industrial unrest

(vi) Technology gap

(vii) Demand gap

(viii) Poor infrastructures

(ix) Raw materials source at a distance

(x) Lack of latest information technology

(xi) Competition war

(xii) Global threats

8. (a) State the basic differences between strategic management and strategic planning.

(b) State the various advantages and disadvantages of Matrix Organisation Structure.

[4+8=12]

Answer:

8. (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.

(b) Advantages of Matrix Organisation Structure:

(i) Useful for some specific industries like Information Technology, Healthcare etc.
(ii) Employee can see visible results of their efforts
(iii) Remove barrier to communications
(iv) Managing projects are easy
(v) Effective structures when environment is very dynamic

Disadvantages of Matrix Organisation Structure:

(i) Complex structure as this contains both vertical and horizontal flow of information
(ii) High cost approach due to more management positions
(iii) Dual lines of authority
(iv) Conflicts arises in the allocation of resources

9. Write short notes on any three of the following: [4x3=12]

(a) Need for Production Strategy.
(b) Hybrid Organization in Strategy Implementation
(c) General Model Stages in BPR
(d) Strategic Planning and Long Range Planning

Answer:

9. (a) Need for a Production Strategy:

The key to successful survival of an enterprise as an independent unit is how efficiently production activity is managed. The two major factors that contribute to business

failures are obsolescence of the product line and excessive production costs. These factors themselves have been the outcome of ineffective production planning.

Production strategy plays crucial role in shaping the ultimate success of a firm. Being based on objective analysis of external environmental forces and corporate strengths and weaknesses, it enables an organisation to make optimal decisions regarding product, production capacity, and plant location, choice of machine and equipment and maintenance of existing facilities. Constant review of manufacturing plan aids in maintaining proper balance of capital investment in plant, equipment and inventory, personnel commitment, efficient operation of the production system by bringing in flexibility and versatility in response to schedule fluctuations, product mix and variations in raw material and quality control, and ensures effective material handling and planning of facilities.

Within the corporate structure, production strategy helps in maintaining full co-ordination with marketing and engineering functions to formulate plans to improve products and services. It calls upon management to keep in constant touch with finance and personnel to achieve the optimal use of assets, cost control, recruitment of suitable production personnel and management of labour disputes and negotiations.

(b) Hybrid Organization in Strategy Implementation:

The successful implementation of Strategy requires an effective organization structure. Organizational structure means the framework in which the organization defines how tasks are divided, resources are deployed and departments are co-ordinated.

A single type of structural design is not always sufficient to meet the requirements of strategy. When this occurs, one opinion is to mix and blend the basic organizations forms, matching structure to strategy, requirement by requirement, and unit by unit, Hybrid structure is a form of departmentalization that adopts parts of both functional and divisional structures at the same level of management.

The major potential advantage of the hybrid structures is that the combination may allow the firm to gain the advantages offered by the primary structure while at least diminishing the impact of the disadvantages.

(c) General Model Stages in BPR:

The Envision stage: the company reviews the existing strategy and business processes and based on that review business processes for improvement are targeted and IT opportunities are identified.

The Initiation stage: project teams are assigned, performance goals, project planning and employee notification are set.

The Diagnosis stage: documentation of processes and sub-processes takes place in terms of process attributes (activities, resources, communication, roles, IT and costs).

The Redesign stage: new process design is developed by devising process design alternatives and through brainstorming and creativity techniques.

The Reconstruction stage: management technique changes occur to ensure smooth migration to the new process responsibilities and human resource roles.

The Evaluation stage: the new process is monitored to determine if goals are met and examine total quality programs.

(d) Strategic Planning and Long Range Planning:

Long range planning is a systematic and formalized process concerned with directing and controlling future operations of an enterprise towards desired objectives for periods spreading generally over 5 or more years. It provides an opportunity to management to anticipate future problems and have got more flexibility in framing the long-range plans.

The basic divergence between strategic planning and long-range planning lies in the difference in the assumption regarding the future environment of an organisation. In case of long-range planning current knowledge about future conditions is known with certainty that can be relied upon by executives. Accordingly, the course of action for achievement of organisational goals is drawn on the basis of this knowledge. In long range planning the future is forecasted through extrapolation of the historical growth.

On the contrary, strategic planning assumes that an organisation must be ready to respond to a dynamic environment and future environmental conditions are not known with perfect certainty. Thus, there is a need to emphasise and understand how the environment assumed is charging. Accordingly, the issue of developing courses of action in response to these changes will have to be taken up. Here, a number of alternatives are generated for several situations for the future. In case of strategic planning, the firm tries to identify opportunities, threats and trends based on which the future prospects are analysed.