

**OPERATIONS MANAGEMENT AND STRATEGIC MANAGEMENT****Time Allowed: 1 Hour****Full Marks: 100**

Answer all questions. Each question carries 2 marks.

**SECTION – A (Compulsory)****I. Choose the correct option:****[15 x 2 =30]**

- i. One of the requirements of Aggregate Planning is:
  - a. Output and sales should be expressed in a logical overall unit of measuring
  - b. Appropriate time period
  - c. List of all resources available
  - d. List of operations required.
- ii. For Quality Assurance in Production and Installation the \_\_\_\_\_ model is be used.:
  - a. ISO 9001
  - b. ISO 9002
  - c. ISO 9003
  - d. None of the above
- iii. A cement factory in Madhya Pradesh works 7 days a week in 3 shifts per days having maintenance in the first shift of around 2 hours. It has roughly 100 workers which produces only pozzolanic properties cement better known as PPC. The output per month is around 2500 tonnes of PPC. Find the productivity per worker?
  - a. 20 tonnes
  - b. 30 tonnes
  - c. 25 tonnes
  - d. 15 tonnes
- iv. Which of the following is not project quality management?
  - a. Quality Definition
  - b. Quality Assurance
  - c. Quality Control
  - d. Quality Inspection
- v. The event from where more than one activity starts:
  - a. Merge event
  - b. Brust Event
  - c. start event
  - d. event nodes

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- vi. The critical path analysis is an important tool in production planning and \_\_\_\_\_ :
- Loading
  - scheduling
  - Routing.
  - All the above
- vii. One of the important charts used in programme control is:
- Material chart
  - Gantt chart
  - Route chart
  - Inspection chart
- viii. Which one of the following is NOT the advantage of Preventive Maintenance?
- Better product quality
  - Greater safety to workers
  - Increased breakdowns and downtime
  - Fewer large-scale repairs
- ix. One of the objectives of maintenance is:
- to prevent obsolescence
  - to ensure spare parts management
  - to satisfy customers
  - to extend the useful life of Plant & Machinery without sacrificing the level of performance
- x. In some case the \_\_\_\_\_ and inconvenience due to breakdown of equipment is so high that standby equipment is kept:
- Cost
  - Loss
  - Time
  - Interval
- xi. Which of the following is correct about Red Ocean Strategy:
- Exploit existing demand
  - Create and capture new demand
  - Create uncontested markers to serve
  - Align the whole system of a firm's activities in pursuit of differentiation and low cost.
- xii. Which among the following is incorrect lyre of organisational structure?
- Value
  - Beliefs
  - Behaviours
  - Objective



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- xiii. In SMART goal framework 'A' consist of:
- Advanced
  - Ambitious
  - Attainable
  - Assessable
- xiv. A company develops a new recycling process to reduce waste. Which PESTEL factor is it responding to?
- Environmental
  - Technological
  - Economic
  - Political
- xv. Which among the following is true?
- BPR has resulted in major gains in efficiency
  - BPR has resulted in major gains in speed
  - BPR has resulted in major gains in quality
  - BPR has resulted in gains in efficiency, quality and speed

Answer:

i	ii	iii	iv	v	vi	vii	viii	ix	x	xi	xii	xiii	xiv	xv
a	b	c	d	b	b	b	c	d	b	a	d	c	a	d

## Section – B

(Answer any five questions out of seven questions given. Each question carries 14 Marks)

[5 x 14 = 70]

2. (a) What are the characteristics of Modern Operations Function? [7]
- (b) Explain the different stages of product life cycle. [7]

Answer:

- (a) The production management of today presents certain characteristics which make it look totally different from what it was during the past. Specifically, today's production system is characterised by at least four features.

1. Manufacturing as Competitive Advantage

In the past production was considered to be like any other function in the organisation. When demand was high and production capacities were inadequate, the concern was to somehow muster all inputs and use them to produce goods which would be grabbed by market. But today's scenario is contrasting. Plants have excess capacities, competition is mounting and firms look and gain competitive advantage to survive and succeed. Interestingly, production system offers vast scope to

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gain competitive edge and firms intend to exploit the potential. Total Quality Management (TQM), Time-Based Competition, Business Process Re-engineering (BPRE), Just-in-Time (JIT), Focused Factory, Flexible Manufacturing Systems (FMS), Computer Integrated Manufacturing (CIM), and The Virtual Corporation are but only some techniques which the companies are employing to gain competitive advantage.

**2. Services Orientation**

was stated earlier, service sector is gaining greater relevance these days. The production system, therefore, needs to be organised keeping in mind the peculiar requirements of the service component. The entire manufacturing needs to be geared to serve.

- (i) intangible and perishable nature of the services,
- (ii) constant interaction with clients or customers,
- (iii) small volumes of production to serve local markets, and
- (iv) need to locate facilities to serve local markets. There is increased presence of professionals on the production, instead of technicians and engineers.

**3. Disappearance of Smokestacks**

Protective labour legislation, environmental movement and gradual emergence of knowledge-based organisations have brought total transformation in the production system. Today's factories are aesthetically designed and built, environment friendly - in fact, they are homes away from homes. Going to factory every day is no more excruciating experience; it is like holidaying at a scenic spot. A visit to ABB, L&T or Smith Kline and Beecham should convince the reader about the transformation that has taken place in the wealth creation system.

**4. Small has Become Beautiful**

It was E.F. Schumacher who, in his famous book Small is Beautiful, opposed giant organisations and increased specialisation. He advocated, instead, intermediate technology based on smaller working units, community ownership, and regional workplaces utilising local labour and resources. For him, small was beautiful. Businessmen, all over the world, did not believe in Schumacher's philosophy. Inspired by economies of scale, industrialists went in for huge organisations and mass production systems.

- (b) Likewise, the business organizations and human beings, each product has a life that goes through various phases or cycles. All these cycles during the usable life of a product is collectively called as Product Life Cycle (PLC). A typical PLC has five stages:

- (a) **Introduction phase:** During this phase the product (either completely new product or a new variant of the existing product) gets introduced in the market for the first time. For the introduction of the new products in the market, at this stage, the volume stays low, sales are low and effect of learning curve is not realized. Hence, the return on investment is low. This phase is featured by higher level of expenditure in the promotional campaigns. The pricing depends on the innovativeness of the product, nature of the target customer segment and most often discounts are given to entice the potential customers.
- (b) **Growth phase:** In this stage, the company focuses on rapid revenue generation and market growth. During this phase, the product sales intend to cover up the fixed cost and bring down the overhead



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costs while utilizing the learning in the previous stage. Promotional and advertising strategy is decided according to the level of the growths. The objective is to hold the existing customers and create new customers.

- (c) **Maturity phase:** This phase is characterized by saturation in the market place. This is a critical phase for the organizations. In the earlier stage (i.e., growth) the objective of the company is to achieve fast growth while in this stage the company wants to flatten the curve to slow down the movement toward fall down. Further, at this stage the organizations infuse variety and differentiation in the products most often to start a new PLC from hereon for finding out a niche market. At this stage, organizations get engaged in aggressive promotional and pricing programs. Profit margin is comparatively lower at this stage.
- (d) **Decline phase:** After maturity, the products start losing their attractiveness in the market and sales get falling down. Profit margin becomes increasingly narrower. The organizations take a call to scrap the product and focus on cost consolidation. Sometimes, organizations come up with revival planning with product differentiation and promotional strategy to improve the sales.

3. (a) 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 breakdowns to an average of one per month. Calculate which policy is suitable for the firm? [7]

- (b) With the help of following data project illustrate the trend of sales for the next five years:

Years	2018	2019	2020	2021	2022	2023
Sales (in lakhs)	100	110	115	120	135	140

[7]

Answer:

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

No. of breakdowns (x)	Frequency in months (f)	Probability (p = f/Σf)	Expected no. of breakdowns (px)
0	2	0.083	0.000
1	8	0.333	0.333
2	10	0.417	0.834
3	3	0.125	0.375
4	1	0.042	0.168
	Σf = 24	Σ p = 1	Total 1.710 = Σpx

Expected Breakdown cost per month; Expected no. of breakdowns per month × cost of each breakdown  
=  $1.710 \times ₹2800 = ₹4788$ .

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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.

**(b) Computation of trend values of sales**

Year	Time deviations from the middle of 2020 and 2021 assuming 6 months = 1 unit	Sales (in lakh ₹)	Squares of time deviation	Product of time deviation and sales
	X	Y	X <sup>2</sup>	XY
2018	-5	100	25	-500
2019	-3	110	9	-330
2020	-1	115	1	-115
2021	+1	120	1	+120
2022	+3	135	9	+405
2023	+5	140	25	+700
n = 6	ΣX = 0	ΣY = 720	ΣX <sup>2</sup> = 70	ΣXY = 280

Regression equation of Y on X:

$$Y = a + bx$$

To find the values of a and b

$$a = \frac{\sum Y}{n} = \frac{720}{6} = 120$$

$$b = \frac{\sum XY}{\sum X^2} = \frac{280}{70} = 4$$

Hence regression equation comes to  $Y = 120 + 4x$

Sales forecast for the next years, i.e., 2024-28

$$Y (2024) = 120 + 4 (+7) = 120 + 28 = ₹ 148 \text{ lakhs}$$

$$Y (2025) = 120 + 4 (+9) = 120 + 36 = ₹ 156 \text{ lakhs}$$

4. (a) A captain of a cricket team has to allot five middle batting positions to five batsmen. The average runs scored by each batsman at these positions are as follows:

Batting Position						
Batsmen		III	IV	V	VI	VII
A		40	40	35	25	50
B		42	30	16	25	27
C		50	48	40	60	50
D		20	19	20	18	25
E		58	60	59	55	53

Prepare the assignment so that the expected total average runs scored by these batsmen are maximum.

[7]



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- (b) Wanda's Car Wash & dry is an automatic, five-minute operation with a single bay. On a typical Saturday morning, cars arrive at a mean rate of eight per hour, with arrivals tending to follow a Poisson distribution. Calculate:

- I. The average number of cars in line.
- II. The average time cars spend in line and service.

[7]

Answer:

- (a) This is a problem of Maximisation. To solve it using Assignment technique it has to be converted to a Minimisation problem by forming a Relative Loss Matrix. forming a Relative Loss Matrix.

Batting Position					
Batsman	III	IV	V	VI	VII
A	40	40	35	25	50
B	42	30	16	25	27
C	50	48	40	60	50
D	20	19	20	18	25
E	58	60	59	55	53

Relative Loss Matrix\*

Batting Position					
Batsman	III	IV	V	VI	VII
A	20	20	25	35	10
B	18	30	44	35	33
C	10	12	20	0	10
D	40	41	40	42	35
E	2	0	1	5	7

\* This matrix is formed by subtracting all the elements of the given matrix from the highest element (60) of it.

Row Operation Matrix

Batting Position					
Batsman	III	IV	V	VI	VII
A	10	10	15	25	0
B	0	12	26	17	15
C	10	12	20	0	10
D	5	6	5	7	0
E	2	0	1	5	7



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## Column Operation Matrix

Batting Position Batsman	III	IV	V	VI	VII
A	10	10	14	25	0
B	0	12	25	17	5
C	10	12	19	0	10
D	5	6	4	7	0
E	2	0	0	5	7

Minimum no. of horizontal and vertical straight lines to cover all the zeros = 4  $\neq$  Order of the matrix (5). So the solution is non optimal.

## Improved Matrix

Batting Position					
Batsman	III	IV	V	VI	VII
A	10	6	10	25	0
B	0	8	21	17	5
C	10	8	15	0	10
D	5	2	0	7	0
E	6	0	0	9	11

Here minimum no. of horizontal and vertical straight lines to cover all the zeros = 5 = Order of the matrix.

So, the solution is optimal.

## Optimal Assignment

Batsman	Batting Position	Average runs scored
A	VII	50
B	III	42
C	VI	60
D	V	20
E	IV	60
Total =		232

Expected maximum total runs = 232.

(b) Arrive Rate =  $\lambda$  = 8 cars per hour

Service Rate =  $\mu$  = 1 per 5 minutes, or 12 per hour

I. Av. no. of cars waiting in line =  $L_q = \frac{\lambda^2}{2\mu(\mu-\lambda)} = \frac{8^2}{2 \times 12(12-8)} = 0.667$  Car

II. Av. time cars spend in line and service =  $W_s = \frac{L_q}{\lambda} + \frac{1}{\mu} = \frac{0.667}{8} + \frac{1}{12} = 0.167$  hours, or 10 minutes.





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5. (a) A pension fund manager is considering investing in two shares A and B. It is estimated that:
- (i) Share A will earn a dividend of 12% per annum and share B 4% per annum.
  - (ii) Growth in the market value in one year of share A will be 10 paise per ₹1 invested and in B 40 paise per ₹1 invested.

He requires investing the minimum total sum which will give:

Dividend income of at least ₹600 per annum and growth in one year of at least ₹1,000 on the initial investment.

You are required to:

Prepare the mathematical formulation of the problem which will facilitate computation of the minimum sum to be invested to meet the manager's objective. [7]

- (b) Prepare the network diagram for the following activities and identify the 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		

[7]

Answer:

(a)

Shares	Dividend	Growth in ₹
A	12%	$10/100 = 0.1$
B	4%	$40/100 = 0.4$
Min-income	600	1000

Let  $X_1$  be the amount invested on share A

Let  $X_2$  be the amount invested on share B

**Objective function:**  $\text{Min. } Z = X_1 + X_2$

Subject to constraints:

$0.12 X_1 + 0.04 X_2 \geq 600$  (Dividend income constraint)

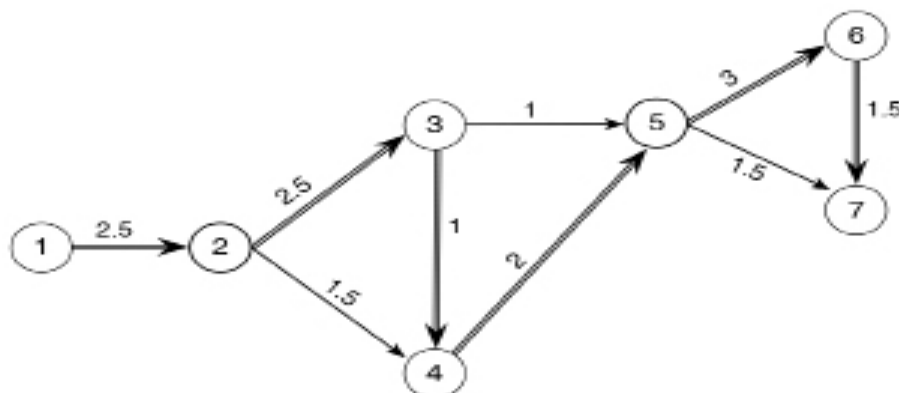
$0.1 X_1 + 0.4 X_2 \geq 1000$  (Growth constraint)

And  $X_1, X_2 \geq 0$ . (Non-negativity constraint)



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(b)



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	$2.5+1.5+2+3+1.5 = 10.5$

6. (a) Explain Balanced score card and what are the different perspectives of Balanced score card. [7]
- (b) Explain the demerits of Big Data. [7]

Answer:

- (a) The balanced score card was developed by Robert S. Kaplan and David Norton of Harvard Business School. This system tries to do away with the overemphasis on short term financial objectives and tries to improve organisational performance by focusing attention on measuring a wide range of non-financial, operational objectives. Later, the system also tried to incorporate the strategic planning technique.
- The balanced score card is a top-down approach to performance management. It starts with the strategic intent and ends with operationally relevant targets. The balance score card model requires an evaluation of organisational performance from four different perspectives.
- Financial Perspective:** It considers the financial measures such as revenues, earnings, return on capital and cash flow arising out from the strategic intent of the organisation.
- Customer's Perspective:** This measures the ability of the organisation to provide quality goods and services, effective delivery and overall customer's satisfaction. Customer's perspective includes market share, customer satisfaction measures and customer loyalty.
- Internal Business Perspective:** The mechanisms through which the performance expectations are achieved are called as internal businesses processes. This provides data regarding the internal business results that have led to financial success and satisfied customers. It is very important to identify the key business processes that should be excelled to meet the organisational objectives and customer satisfaction.



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**Learning and Growth Perspective:** This perspective focuses on the ability of the organisation to manage its business and adapt to changes in the environment. Organisations take on new responsibilities that require its employee to develop new skills and capabilities to cope with the changing environment and customer expectations.

- (b) In spite of the fact that cloud computing has huge benefits yet, it has its own causes of concern as follows:

**Cloud security:** There is a clear lack of transparency regarding how and where sensitive information entrusted to the cloud provider is handled. When relying on the cloud, organisations risk data breaches, hacking of APIs and interfaces, compromised credentials and authentication issues.

**Cost unpredictability:** The concept Pay-as-you-go subscription plans for cloud use, along with scaling resources to accommodate fluctuating workload demands, can make it tough to define and predict final costs.

**Lack of capability and expertise:** With cloud-supporting technologies rapidly advancing, organisations are struggling to keep up with the growing demand for tools and employees with the proper skill sets and knowledge needed to architect, deploy, and manage workloads and data in a cloud.

**IT governance:** The emphasis on do-it-yourself capability in cloud computing can make IT governance difficult, as there is no control over provisioning, de provisioning and management of infrastructure operations.

**Compliance with industry laws:** When transferring data from on-premises local storage into cloud storage, it can be difficult to manage compliance with industry regulations through a third party.

**Management of multiple clouds:** Every cloud is different, so multi-cloud deployments can disjoint efforts to address more general cloud computing challenges.

**Cloud performance:** Network and provider outages can interfere with productivity and disrupt business processes if organisations are not prepared with contingency plans.

**Building a private cloud:** Architecting, building and managing private clouds whether for its own purpose or for a hybrid cloud goal can be a daunting task for IT departments and staff.

**Cloud migration:** The process of moving applications and other data to a cloud infrastructure often causes complications. Migration projects frequently take longer than anticipated and go over budget.

**Vendor lock-in:** Switching between cloud providers can cause significant issues. This includes technical incompatibilities, legal and regulatory limitations and substantial costs incurred from sizable data migrations.

7. (a) Discuss value chain. What are the primary and secondary activities? [7]  
(b) Examine the steps involved in strategic planning. [7]

**Answer:**

- (a) The value chain describes the categories of activities within and around an organisation, which together create a product or service. The concept was developed in relation to competitive strategy by Michael Porter. The term value chain refers to the idea that a company is a chain of activities that transforms inputs into outputs that customer's value. The transformation process involves both primary activities and support activities that add value to the product. Activities can be broadly divided into two types namely, primary activities and secondary or support activities.

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**Primary activities** are directly concerned with the creation or delivery of a product or service. For example, for a manufacturing business the primary activities are as follows:

- **Inbound logistics** are activities concerned with receiving, storing and distributing inputs to the product or service including materials handling, stock control, transport, etc.
- **Operations transform** these inputs into the final product or service. Operations include machining, packaging, assembly, testing, etc.
- **Outbound logistics** collect, store and distribute the product to customers, for example warehousing, materials handling, distribution, etc.
- **Marketing and sales** provide the means whereby consumers/users are made aware of the product or service and are able to purchase it. This includes sales administration, advertising and selling.
- **Service** includes those activities that enhance or maintain the value of product or service, such as installation, repair, training and spares.

**Support activities** help to improve the effectiveness or efficiency of primary activities. The following are the support or secondary activities:

- **Procurement:** It refers to the processes that occur in many parts of the organisation for acquiring the various resource inputs to the primary activities.
- **Technology development:** All value activities have a 'technology', even if it is just know-how. Technologies may be concerned directly with a product or with processes or with a particular resource.
- **Human resource management:** This transcends all primary activities. It is concerned with those activities involved in recruiting, managing, training, developing and rewarding people within the organisation.
- **Infrastructure:** The formal systems of planning, finance, quality control, information management, and the structures and routines that are part of an organisation's culture.

In the value chain process the value can be added early in the value chain, i.e. upstream and later in the value chain, i.e. downstream.

**(b) The formal strategic planning process has five main steps:**

**i. Select the corporate mission and major corporate goals**

The first component of the strategic planning process is crafting the organisation's mission statement, which provides the framework or context within which strategies are formulated. A mission statement has four main components: a statement of its reason for existence which is normally referred to as the mission; a statement of some desired future state, usually referred to as the vision; a statement of the key values that the organisation is committed to; and a statement of major goals.

**ii. Analyse the organisation's external competitive environment to identify opportunities and threats**

The second component of the strategic planning process is an analysis of the organisation's external operating environment. The essential purpose of the external analysis is to identify strategic opportunities and threats within the organisation's operating environment that will affect how it

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pursues its mission. Three interrelated environments should be examined when undertaking an external analysis: the industry environment in which the company operates, the country or national environment and the wider socioeconomic or macro environment.

**iii. Analyse the organisation's internal operating environment to identify the organisation's strengths and weaknesses**

Internal analysis, the third component of the strategic planning process, focuses on reviewing the resources, capabilities, and competencies of a company. The goal is to identify the strengths and weaknesses of the company. The next component of strategic thinking requires the generation of a series of strategic alternatives, or choices of future strategies to pursue, given the company's internal strengths and weaknesses and its external opportunities and threats. The comparison of strengths, weaknesses, opportunities, and threats is normally referred to as a SWOT analysis. More generally, the goal of a SWOT analysis is to create, affirm, or fine-tune a company-specific business model that will best align, fit, or match a company's resources and capabilities to the demands of the environment in which it operates.

**iv. Select strategies**

Managers select strategies that build on the organisation's strengths and correct its weaknesses in order to take advantage of external opportunities and counter external threats. In order to select the right strategies managers, compare and contrast the various alternative possible strategies against each other and then identify the set of strategies that will create and sustain a competitive advantage. It is very important for the strategic managers to keep in mind that the strategies selected should be consistent with the mission and major goals of the organisation. They should be congruent and constitute a viable business model.

**V. Implement the strategies**

In order to achieve a competitive advantage and increase profitability managers must put those strategies selected into action. Strategy implementation involves taking actions at the functional, business, and corporate levels to execute a strategic plan.

Implementation can include, for example,

- putting quality improvement programs into place
- changing the way, a product is designed
- positioning the product differently in the marketplace
- segmenting the marketing and offering different versions of the product to different consumer groups
- implementing price increases or decreases
- expanding through mergers and acquisitions
- downsizing the company by closing down or selling off parts of the company

Strategy implementation also entails designing the best organisation structure and the best culture and control systems to put a chosen strategy into action. In addition, senior managers need to put a governance system in place to make sure that all within the organisation act in a manner that is not only consistent with maximizing profitability and profit growth, but also legal and ethical.



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8. (a) Discuss the nine-design test on structural solutions. [7]
- (b) Analyze the traditional and contemporary approach of strategic control. [7]

Answer:

- (a) Structural choice depends on the strategic challenges the organisation faces. In reality, few organisations adopt a structure that is just like one of the pure structural types discussed above. Structures often blend different types and have to be tailor-made to the particular mix of challenges facing the organisation. Michael Goold and Andrew Campbell provide nine design tests against which to check specific tailor-made structural solutions. The first four tests stress fit with the key objectives and constraints of the organisation:
- **The Market-Advantage Test:** This test of fit with market strategy is fundamental, following Alfred Chandler's classic principle that 'structure follows strategy'. For example, if coordination between two steps in a production process is important to market advantage, then they should probably be placed in the same structural unit.
  - **The Parenting Advantage Test:** The structural design should fit the 'parenting' role of the corporate centre. For example, if the corporate centre aims to add value as a synergy manager, then it should design a structure that places important integrative specialisms, such as marketing or research, at the centre.
  - **The People Test:** The structural design must fit the people available. It is dangerous to switch completely from a functional structure to a multidivisional structure if, as is likely, the organisation lacks managers with competence in running decentralised business units.
  - **The Feasibility Test:** This is a catch-all category, indicating that the structure must fit legal, stakeholder, trade union or similar constraints. For example, after scandals involving biased research, investment banks are now required by financial regulators to separate their research and analysis departments from their deal-making departments. Goold and Campbell then propose five tests based on good general design principles, as follows:
  - **The Specialised Cultures Test:** This test reflects the value of bringing together specialists so that they can develop their expertise in close collaboration with each other. A structure fails if it breaks up important specialist cultures.
  - **The Difficult Links Test:** This test asks whether a proposed structure will set up links between parts of the organisations that are important but bound to be strained. For example, extreme decentralisation to profit-accountable business units is likely to strain relationships with a central research and development department. Unless compensating mechanisms are put in place, this kind of structure is likely to fail.
  - **The Redundant Hierarchy Test:** Any structural design should be checked in case it has too many layers of management, causing undue blockages and expense. Delaying in response to redundant hierarchies has been an important structural trend in recent years.
  - **The Accountability Test:** This test stresses the importance of clear lines of accountability, ensuring the control and commitment of managers throughout the structure. Because of their dual lines of reporting, matrix structures are often accused of lacking clear accountability.

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- **The Flexibility Test:** In a fast-moving world, an important test is the extent to which a design will allow for change in the future. For instance, divisional domains should be specified broadly enough to allow divisional managers to follow new opportunities as they emerge.
- (b) **According to Dess, Lumpkin and Taylor (2003), there are two approaches to strategic control namely, Traditional Approach and Contemporary Approach.**

**Traditional Approach**

**This approach to strategic control is sequential:**

- Operations Management and Strategic Management
- Strategies are formulated and top management set the goals.
- Strategies are implemented.
- Performance is measured against goals.
- Corrective measures are taken, if there are deviations.

The control is based on a feedback loop from performance measurement to strategy formulation. This type of approach has its own limitations. This process typically involves lengthy time lags and often tied to a firm's annual planning cycle. This approach not being proactive is not sufficient to a strategy. As strategy involves a long period of time for implementation and to produce results it becomes imperative that there should be continuous evaluation of the planning premises and strategy implementation in order to get the desired results.

**Contemporary Approach**

Under this approach, adapting to and anticipating both internal and external environment, change is an integral part of strategic control. This approach addresses the assumptions and premises that provide the foundation for the strategy. The key question addressed here is: do the organisations goals and strategies still fit within the context of the current environment? This involves two key actions:

- (i) Managers must continuously scan and monitor the external and internal environment.
- (ii) Managers must continuously update and challenge the assumptions underlying the strategy.

This may even need changes in the strategic direction of the firm. While strategic control requires the contemporary approach, operational control is generally done through traditional approach.