Paper - 9 : Operations Management and Strategic Management

Answer to MTP_Intermediate_Syllabus 2016_Dec2019_Set 2

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 alternatives: 1×10=10

(i) Which one of the following is not a factor in determining Economic Lot Size for manufacturing?
(a) Production Schedule
(b) Usage rate
(c) Manufacturing Cost
(d) Cost of Deterioration

(ii) Negative float signifies
(a) Reduction in target time to finish the work in time
(b) Adjustment of target time to finish the work before schedule
(c) Reduction in target time to crash the critical path
(d) Adjustment of target time to maintain the most likely time of activities

(iii) On which of the following areas ISO 9003 is applicable?
(a) Procurement
(b) Production
(c) Installation
(d) Servicing

(iv) To truly reap the benefits of TQM
(a) Quality of production of organisation must change
(b) Productivity of organisation must change
(c) Culture of organisation must change
(d) Environment of organisation must change

(v) Which one of the following is the benefit of keeping standby machines?
(a) Requirement of Additional space
(b) Interest on additional capital
(c) Availability of Additional depreciation
(d) Protection against a complete shutdown

(vi) Which one of the following is not a factor on which Scheduling depends?

(a) Production Method
(b) Production Quantity
(c) Production Capacity
(d) Production Site

(vii) Quality of conformance is

(a) The degree to which quality of design is achieved in manufacturing
(b) The degree to which quality of product is achieved through customer's preferences
(c) The degree to which quality of human resources is achieved through training
(d) The degree to which quality of assets is achieved through technological innovation

(viii) A public sector industry is started in a remote place. With respect to this information which one of the following is correct?

(a) Industry follows transportation
(b) Industry & transportation come in together
(c) Transportation follows industry
(d) Transportation increases mobility of industry

(ix) Machine time of a machine is 22 minutes. If productivity increases by 10% the new machine time is

(a) 12
(b) 5
(c) 19.8
(d) 20

(x) Which one of the following is Administrative Application of Linear Programming?

(a) Application for forming financial mix strategy
(b) Application for scheduling production
(c) Application for finding optimal usage of resources
(d) Application for portfolio selection

(b) Match items in column A with that in column B: 1×6=6

Column A	Column B
(a) Horizontal line of the Gantt chart	(i) Are where more than one Activity ends and from where more than one Activity starts
(b) Dummy Activities	(ii) Represent the difference between the maximum time available to finish the activity and the time required to complete it.
(c) Merger and Brust Events	(iii) Consume no time or resource & are represented by dashed arrows

(d) Floats	**(iv) Fraction from total float of an activity which can be used for rescheduling the activity without affecting the succeeding activity.**
(e) Free Float	**(v) Solution to Transportation problem**
(f) Vogel's Approximation Method	**(vi) Represents the time taken to complete an activity**

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

(i) No handling is the best handling.
(ii) Increased productivity leads to cost reduction.
(iii) Job evaluation is used to measure absolute job worth.
(iv) Multiple activity chart deals with layout problems.
(v) Training boosts employee morale.
(vi) Production planning is an essential function in a factory.

Answer:

1. (a) (i) (a) Production Schedule
(ii) (a) Reduction in target time to finish the work in time
(iii) (b) Production
(iv) (c) Culture of organization must change
(v) (d) Protection against a complete shutdown
(vi) (d) Production site
(vii) (a) The degree to which quality of design is achieved in manufacturing
(viii) (c) Transportation follows industry
(ix) (d) 20
(x) (c) Application for portfolio selection

(b)

Column A	Column B
(a) Horizontal line of the Gantt chart	(vi) Represents the time taken to complete an activity
(b) Dummy Activities	(iii) Consume no time or resource & are represented by dashed arrows
(c) Merger and Brust Events	(i) Are where more than one Activity ends and from where more than one Activity starts
(d) Floats	(ii) Represent the difference between the maximum time available to finish the activity and the time required to complete it.
(e) Free Float	(iv) Is that fraction from total float of an activity which can be used for rescheduling the activity without affecting the succeeding activity.

(f) Vogel's Approximation Method	(v) Solution to Transportation problem

(c)

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

[Answer any three questions from the following]

2. (a) What do you mean by MRP? State the objectives of MRP.

(b) M/s Kobo Bearings Ltd., is committed to supply 24,000 bearings per annum to M/s Deluxe Fans on a steady daily basis. It is estimated that it costs 10 paisa as inventory holding cost per bearing per month and that the setup cost per run of bearing manufacture is ₹ 324.

(i) What is the optimum run size for bearing manufacture?

(ii) What should be the interval between the consecutive optimum runs?

(iii) Find out the minimum inventory holding cost. 6+10=16

Answer:

2. (a) Material requirement planning (MRP) refers to the basic calculations used to determine component requirements from end item requirements. It also refers to a broader information system that uses the dependence relationship to plan and control manufacturing operations.

MRP is a technique of working backward from the scheduled quantities and needs dates for end items specified in a master production schedule to determine the requirements for components needed to meet the master production schedule. The technique determines what components are needed, how many are needed, when they are needed and when they should be ordered so that they are likely to be available as needed. The MRP logic serves as the key component in an information system for planning and controlling production operations and purchasing. The information provided by MRP is highly useful in scheduling because it indicates the relative priorities of shop orders and purchase orders.

"Materials Requirement Planning (MRP) is a technique for determining the quantity and timing for the acquisition of dependent demand items needed to satisfy master production schedule requirements."

MRP is one of the powerful tools that, when applied properly, helps the managers in achieving effective manufacturing control.

MRP Objectives:

1. **Inventory reduction:** MRP determines how many components are required, when they are required in order to meet the master schedule. It helps to procure the materials/components as and when needed and thus avoid excessive build up of inventory.
2. **Reduction in the manufacturing and delivery lead times:** MRP identifies materials and component quantities, timings when they are needed, availabilities and procurements and actions required to meet delivery deadlines. MRP helps to avoid delays in production and priorities production activities by putting due dates on customer job orders.
3. **Realistic delivery commitments:** By using MRP, production can give marketing timely information about likely delivery times to prospective customers.
4. **Increased efficiency:** MRP provides a close coordination among various work centres and hence helps to achieve uninterrupted flow of materials through the production line. This increases the efficiency of production system.

(b) (i) Optimum run size or Economic Batch Quantity (EBQ)

$$= \frac{2 \times \text{Annual Output} \times \text{Setup cost}}{\text{Annual Cost of Carrying one Unit}} \qquad = \sqrt{\frac{2 \times 24000 \times 324}{0.10 \times 12}} \qquad = 3600 \text{ units}$$

(ii) Interval between two consecutive optimum runs

$$= \frac{\text{EBQ}}{\text{Monthly Output}} \times 30 = \frac{3600}{24000 \div 12} \times 30 = 54 \text{ Calendar days}$$

(iii) Minimum inventory holding cost = Average inventory × Annual carrying cost of one unit of inventory = (3600 ÷ 2) × 0.10×12 = ₹ 2,160.

3. (a) What does Product Design do?

(b) The processing times (t_1) in hrs for the five jobs of a single machine scheduling is given. Find the optimal sequence which will minimize the mean flow time and find the mean flow time.

Determine the sequence which will minimize the weighted mean flow time and also find the mean flow time

Job (j)	**1**	**2**	**3**	**4**	**5**
Processing time (t_i) hrs	**30**	**8**	**10**	**28**	**16**
Weight (w_j)	**1**	**2**	**1**	**2**	**3**

4+12=16

Answer:

3. (a) The activities and responsibilities of product design include the following:
   (i) Translating customer needs and wants into product and service requirements (marketing).
   (ii) Refining existing products (marketing).

(iii) Developing new products (marketing, product design and production).
(iv) Formulating quality goals (quality assurance, production).
(v) Formulating cost targets (accounting).
(vi) Constructing and testing prototype (marketing, production).
(vii) Documenting specifications (product design).

(b) (i) First arrange the jobs as per the shortest processing time (SPT) sequence.

Job (j)	2	3	5	4	1
Processing time (t_j) hrs	8	10	16	28	30

Therefore, the job sequence that minimises the mean flow time is 2-3-5-4-1.

Computation of minimum flow time (F min)

The flow time is the amount of time the job 'j' spends in the system. It is a measure which indicates the waiting of jobs in the system. It is the difference between the completion time (C_j) and ready time (R_j) for job j.

$$F_j = C_j - R_j$$

Job (j)	2	3	5	4	1
Processing time (t_j) hrs	8	10	16	28	30
Completion time (C_j)	8	18	34	62	92

Since the ready time (R_j) = 0 for all j, the flow time ($\bar{F}_j$) is equal to C_j for all j.

Mean flow time $= (\bar{F}) = \frac{1}{n}\sum_{j=1}^{n} F_j = \frac{1}{5}[8+18+34+62+92] = \frac{1}{5}[214] = 42.8$ hours

(ii) The weights are given as follows:

Job (j)	1	2	3	4	5
Processing time (t_j) hrs	30	8	10	28	16
Weight (W_j)	1	2	1	2	3

$$\text{The weighted processing time} = \frac{\text{Processing time } (t_j)}{\text{Weight } (W_j)}$$

The weighted processing time is represented as

Job (j)	1	2	3	4	5
Processing time (t_j hrs)	30	8	10	28	16
Weight (W_j)	1	2	1	2	3
Weighted Processing time (t_j/W_j)	30	4	10	14	5.31

Thus, arranging the jobs in the increasing order of t_j/W_j (weighted shortest processing time WSPT) we have

Job (j)	2	5	3	4	1
Weighted Processing line (t_j/W_j)	4	5.31	10	14	30

Optimal sequence that minimises the weighted mean flow time is 2-5-3-4 -1.

Weighted Mean flow time ($\overline{F_w}$) : $\overline{F_w} = \frac{\sum_{j=1}^{n} W_j F_j}{\sum_{j=1}^{n} W_j}$

Job (j)	2	5	3	4	1
Processing time (t_j) hrs	8	16	10	28	30
$F_j = (C_j - R_j)$	8	24	34	62	92
W_j	2	3	1	2	1
$F_j \times W_j$	16	72	34	124	92

The weighted mean flow time is computed as follows for optimal sequence.

Weighted mean flow time ($\overline{F_w}$) is computed as

$$\overline{F_w} = \frac{(16+72+34+124+92)}{(2+3+1+2+1)} = 37.55 \text{ hrs.}$$

4. (a) Linear Programming tools can be used in Management Application – Explain.

(b) Ladies fashion shop wishes to purchase the following quantity of summer dresses:

Dress size	**I**	**II**	**III**	**IV**
Quantity	**100**	**200**	**450**	**150**

Three manufacturers are willing to supply dresses.

The quantities given below are the maximum that they are able to supply of any given combination of orders for dresses:

Manufacturers	**A**	**B**	**C**
Total quantity	**150**	**450**	**250**

The shop expects the profit per dress to vary with the manufacturer as given below:

	Size I	II	III	IV
A	₹2.5	₹4.0	₹5.0	₹2.0
B	₹3.0	₹3.5	₹5.5	₹1.5
C	₹2.0	₹4.5	₹4.5	₹2.5

Required:

(a) Use the transportation technique to solve the problem of how the orders should be placed with the manufacturers by the fashion shop in order to maximise profit.

(b) Explain how you would know there is no further improvement possible. 6+10=16

Answer:

4. (a) Management Application of Linear Programming Tools:
   (i) Portfolio Selection
   (ii) Financial Mix Strategy.
   (iii) Profit Planning
   (iv) Media Selection
   (v) Travelling Salesmen Problem
   (vi) Determination of equitable salaries
   (vii) Staffing problem

(b)

Table: 1 Profit Matrix

Dress Size / Manufacturer	I	II	III	IV	Supply
A	2.5	4	5	2	150
B	3	3.5	5.5	1.5	450
C	2	4.5	4.5	2.5	250
Demand	100	200	450	150	850 / 900

Maximum possible supply capability of manufacturer = 850 units
Total Demand = 900 units

As Supply ≠ demand, the problem is an unbalanced one. To make it balanced, a 'Dummy' manufacturer of supply capacity = 900 – 850 = 50 units. is introduced. The profit figures for it are all zeros.

Also it is a problem of maximisation, to convert it to a problem of minimisation, a Relative Loss matrix is formed by subtracting all the profit figures given in the above matrix as well as those of Dummy from the highest profit (5.5) figure of the given matrix.

Table : 2 Relative Loss Matrix with Basic Feasible Solution

Dress Size / Manu-facturer	I	II	III	IV	Supply	Row Penalties		
						1st	2nd	3rd
A	(100) 3	1.5	0.5	(50) 3.5	150 ~~50~~	1	1.5	0.5*
B	2.5	2	(450) 0	4	~~450~~	2*	–	–
C	3.5	(200) 1	1	(50) 3	~~250~~ ~~50~~	0	2*	0.5
Dummy	5.5	5.5	5.5	(50) 5.5	~~50~~	0	0	0
Demand	~~100~~	~~200~~	~~450~~	~~150~~	900			
Column Penalties 1st	0.5	0.5	0.5	0.5				
Column Penalties 2nd	0.5	0.5	–	0.5				
Column Penalties 3rd	0.5	–	–	0.5				

Here, m = No. of rows of the matrix = 4 and n = No. of columns of the matrix = 4
$\therefore$ m + n – 1 = 4 + 4 – 1 = 7

Also no. of allocated cells = 6 ≠ (m+ n – 1)
So the solution is a **degenerate** one. To resolve this, we make use of an artificial quantity 'ε' and allocate this quantity at the unallocated cell which is having least cost among all the unallocated cells. It can be mentioned that the quantity 'ε' is very small and for all practical purposes its value can be taken as zero.

Least cost unallocated cell is (A-III) where allocation of 'ε' has to be made.

Table : 3 Showing Basic Feasible Solution (Optimal)

Dress Size / Manufacturer	I	II	III	IV	Supply	Row Nos. (u_i)
A	(100) 3	1.5	(ε) 0.5	(50) 3.5	150	$u_1 = 0$
B	2.5	2	(450) 0	4	450	$u_2 = -0.5$
C	3.5	(200) 1	1	(50) 3	250	$u_3 = -0.5$
Dummy	5.5	5.5	5.5	(50) 5.5	50	$u_4 = 2$
Demand	100	200	450	150	900	
Column Nos. (v_j)	$v_1 = 3$	$v_2 = 1.5$	$v_3 = 0.5$	$v_4 = 3.5$		

To test optimality of the Basic Feasible Solution, Row Nos. (u_i) and Column Nos. (v_j) are calculated using the equation $C_{ij} = u_i + v_j$ for the allocated cells, where C_{ij} = Relative Loss figure of the cell i - j.

Allocated cell	A-I	A-III	A-IV	B-III	C-II	C-IV	Dummy-IV
C_{ij}	$C_{11}= 3$	$C_{13}= 0.5$	$C_{14}= 3.5$	$C_{23}= 0$	$C_{32}= 1$	$C_{34}= 3$	$C_{44}= 5.5$

$C_{11} = u_1 + v_1$ or, $3 = 0 + v_1$ [$u_1 = 0$, Assumed] or, $v_1 = 3$

$C_{13} = u_1 + v_3$ or, $0.5 = 0 + v_3$ or, $v_3 = 0.5$; $C_{14} = u_1 + v_4$ or, $3.5 = 0 + v_4$ or, $v_4 = 3.5$

$C_{23} = u_2 + v_3$ or, $0 = u_2 + 0.5$ or, $u_2 = -0.5$; $C_{34} = u_3 + v_4$ or, $3 = u_3 + 3.5$ or, $u_3 = -0.5$

$C_{32} = u_3 + v_2$ or, $1 = -0.5 + v_2$ or, $v_2 = 1.5$; $C_{44} = u_4 + v_4$ or, $5.5 = u_4 + 3.5$ or, $u_4 = 2$

Opportunity Loss figures (Δ_{if}) for all the unallocated cells are calculated using the equation $\Delta_{ij} = C_{ij} - (u_i + v_j)$

Unallocated Cell	Opportunity Loss (Δ_{ij})
A - II	$\Delta_{12} = C_{12} - (u_1 + v_2) = 1.5 - (0 + 1.5) = 0$
B - I	$\Delta_{21} = C_{21} - (u_2 + v_1) = 2.5 - (-0.5 + 3) = 0$
B - II	$\Delta_{22} = C_{22} - (u_2 + v_2) = 2 - (-0.5 + 1.5) = 1$
B - IV	$\Delta_{24} = C_{24} - (u_2 + v_4) = 4 - (-0.3 + 3.5) = 1$
C - I	$\Delta_{31} = C_{31} - (u_3 + v_1) = 3.5 - (-0.5 + 3) = 1$
C - III	$\Delta_{33} = C_{33} - (u_3 + v_3) = 1 - (-0.5 + 0.5) = 1$
Dummy - I	$\Delta_{41} = C_{41} - (u_4 + v_1) = 5.5 - (2 + 3) = 0.5$
Dummy - II	$\Delta_{42} = C_{42} - (u_4 + v_2) = 5.5 - (2 + 1.5) = 2$
Dummy - III	$\Delta_{43} = C_{43} - (u_4 + v_3) = 5.5 - (2 + 1.5) = 3$

As all the opportunity loss values are non negative, the solution is optimal.

Table Showing Optimum allocation of orders quantities

From Manufacturer	Dress Size	Allocated Quantity	Profit/unit (₹)	Total (₹)
(i)	(ii)	(iii)	(iv)	(v) = (iii) × (iv)
A	I	100 units	2.5	250
	IV	50 units	2	100
B	III	450 units	5.5	2475
C	II	200 units	4.5	900
	IV	50 units	2.5	125
Dummy	IV	50 units	0	0
Total	**–**	**900 units**	**–**	**₹ 3850**

Maximum Profit = ₹ 3850/-

5. (a) Product A has a Mean Time Between Failures (MTBF) of 30 hours and has a Mean Time To Repairs (MTTR) of 5 hours. Product B has a MTBF of 40 hours and has a MTTR of 2 hours.

(i) Which product has the higher reliability?

(ii) Which product has greater maintainability?

(iii) Which product has greater availability?

(b) The following activities must be accomplished in order to complete a construction project:

Activity	A	B	C	D	E	F	G	H	I	J
Time	3	8	4	2	1	7	5	6	8	9
Predecessors	—	—	AB	B	A	C	EF	DF	GH	I

- **Construct a network diagram for this project. Find the CP and the duration of the project.**
- **Assume that you are project manager of the project mentioned above. The project has progressed for 10 weeks and the status is follows:**

Activities completed: A, B, E. Other activities have not started as yet.

- **If no managerial action is taken at all when will the project get completed?**
- **What action might you take to get the project back to a schedule that can be completed by the end of week 42?** **6+10=16**

Answer:

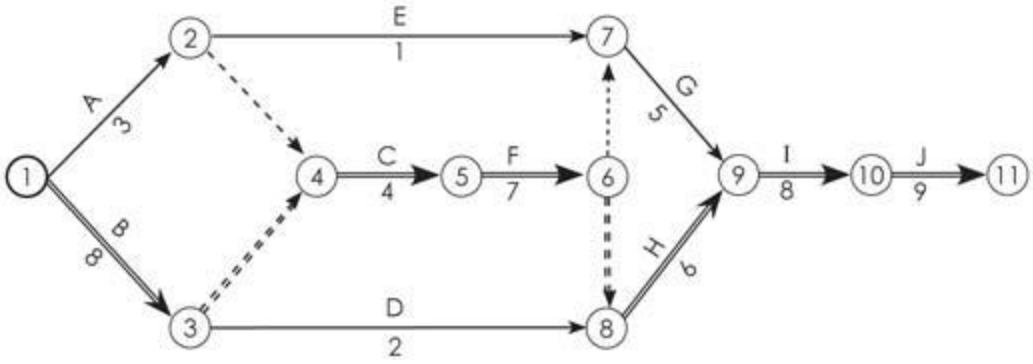
5. (a) (i) Product B, with higher MTBF (i.e. 40 hours) than Product A (i.e. 30 hours), is more reliable since it has lesser chance of failure during servicing.

(ii) By MTTR we mean the time taken to repair a machine and put it into operation. Thus Product B, with lesser MTTR (i.e., 2 hours) than Product A (i.e., 5 hours), has greater maintainability.

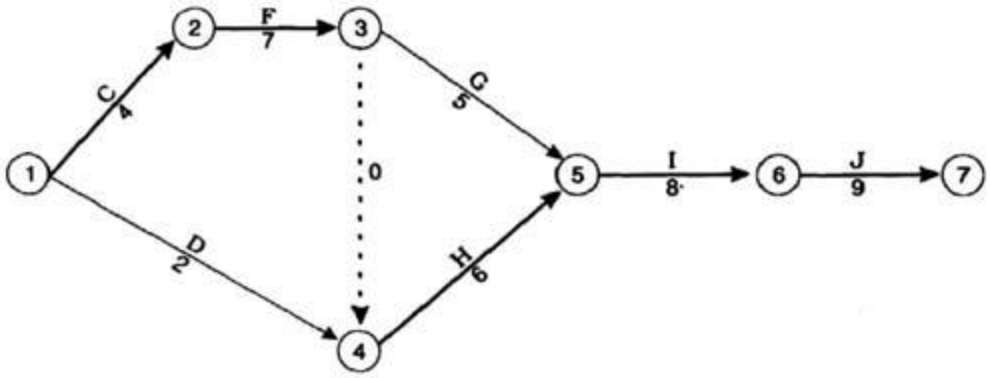
(iii) Availability of a machine/product = $\frac{\text{MTBF}}{\text{MTBF} + \text{MTTR}}$

Therefore, Availability of Product A = 30/ (30+5) = 30/35 = 85.714%
Availability of Product B = 40/(40+2) = 40/42 = 95.238%
Hence, Product B has more availability.

(b)



Paths	Duration (weeks)	Paths	Duration (weeks)
1-2-7-9-10-11	26	1-3-4-5-6-7-9-10-11	41
1-2-4-5-6-7-9-10-11	36	1-3-4-5-6-8-9-10-11	42
1-2-4-5-6-8-9-10-11	37	1-3-8-9-10-11	33
Critical Path: BCFHIJ. Duration 42 weeks.			



Paths	1-2-3-5-6-7	1-2-3-4-5-6-7	1-4-5-6-7
Duration (weeks)	33	34 **Critical Path: CFHIJ**	25

For completing the project as per original schedule, the project activities on the critical path should be reduced by 2 weeks. For example, we may reduce any one of the activities CFHIJ by 2 weeks or any two activities by one week each.

Section – II : (Strategic Management)

6. Choose the correct answer:

(i) Price fixation for the first time takes place when: 1×6=6

(a) A company develops or acquires a new product;
(b) Introducing existing product into a new geographic area or a new distribution channel;
(c) A service, the company bids for a new contract work;
(d) All of the above

(ii) Organization culture is:

(a) Appreciation for the arts in the organization
(b) Ability of the organization to act in a responsible manner to its employees
(c) Combination of (a) and (b) above
(d) Deeper level of basic assumptions and beliefs that are shared by the members of the firm
(e) None of the above

(iii) What are enduring statements of purpose that distinguish one business from other similar Firms?

(a) Policies
(b) Mission statements
(c) Objectives
(d) Rules
(e) Nature of ownership

(iv) The BCG growth matrix is based on the two dimensions:

(a) Market Size and Market Share
(b) Market Size and Profit Margins
(c) Market Size and Competitive Intensity
(d) None of the above.

(v) For an entrepreneur:

(a) Vision is before the mission
(b) Mission is before the vision
(c) Both are developed simultaneously
(d) Vision or mission are un-important issue
(e) Profitability is most crucial

(vi) Directional Policy Matrix is the same as:

(a) The BCG model;
(b) The 9-cell GE matrix;
(c) The Life cycle portfolio analysis;
(d) The PIMS matrix;
(e) The 3X3 competitive positioning matrix

Answer:

6. (i) (d) All of the above
   (ii) (d) Deeper level of basic assumptions and beliefs that are shared by the members of the firm
   (iii) (b) Mission statements
   (iv) (d) None of the above
   (v) (a) Vision is before the mission
   (vi) (b) The 9-cell GE matrix

[Answer any two questions from the following]

7. (a) Discuss in brief about the areas of attention for SWOT appraisal. State the purpose of such appraisal.
(b) What is a Company Mission? 8+4=12

Answer:

7. (a) SWOT appraisal should give particular attention to the following:

(i) **A study of past accounts and the use of ratios.** By looking at trends, or by comparing ratios (if possible) with those of other firms in a similar industry, it might be possible to identify strengths and weaknesses in major areas of the business. The assistance of a management accountant should be of great value in this work.

(ii) **Product position and product-market mix.**

(iii) **Cash and financial structure.** If a company intends to expand or diversify, it will need cash or sufficient financial standing in order to acquire subsidiaries by issuing shares.

(iv) **Cost structure.** If a company operates with high fixed costs and relatively low variable costs, it might be in a relatively weak position with regard to production capacity. High volumes of production and sale might be required to break even. In contrast, a company with low fixed costs might be more flexible and adaptable so that it should be able to operate at a lower breakeven point.

(v) **Managerial ability.** There may be a problem in attempting to assess this and objective measurements should be sought. The danger is that a poor management might overestimate their own ability and incorrectly analyse their weakness as strength.

The purpose of such appraisal is to express, qualitatively or quantitatively, which areas of the business have strengths to exploit, and which areas have weaknesses which must be improved. Although every area of the business should be investigated, only the areas of significant strength or weakness should warrant further attention.

While finalising the corporate plan together with corporate objectives, growth strategies, it would be necessary to make a review of the corporate strengths and weaknesses in connection with its mission and objectives. This is an important managerial task linked with corporate planning process.

(b) The mission is a broadly framed but enduring statement of company intent. It embodies the business philosophy of strategic decision makers; implies the image the company seeks to project; reflects the firm's self-concept; indicates the principal product or service areas and primary cus-tomer needs the company will attempt to satisfy. In short, the mission describes the product, market, and technological areas of emphasis for the business. And it does so in a way that reflects the values and priorities of strategic decision makers.

The mission of a business is the fundamental, unique purpose that sets it apart from other firms of it's type and identifies the scope of it's operations in product and market terms. The mission is a general, enduring statement of company intent. It embodies the business philosophy of strategic decision makers, implies the image the company seeks to project, reflects the firm's self-concept, and indicates the principal product or service areas and primary customer heeds the company will attempt to satisfy. In short, the mission describes the product, market, and technological areas of emphasis for the business in a way that reflects the values and priorities of the strategic decision makers.

8. (a) Discuss about Strategic Business Units (SBU) & Core Competence. State the major reasons of using SBU approach.
(b) State the different approaches in Strategic Planning. (4+4)+4=12

Answer:

8.

(a) **Strategic Business Units (SBU) & Core Competence:**

- SBU is a grouping of related businesses, which is open to complex planning treatment.
- Multi-business enterprise groups it's various businesses into a few distinct business units in a scientific way known as SBUs.
- The purpose is to provide effective strategic planning treatment to each one of it's products /businesses.
- SBU concept is relevant to a multi-product, multi-business enterprises like Unilever Limited
- In other words, the SBU concept helps a multi-business corporation in scientifically grouping it's businesses into a few distinct business units. Such a grouping would in

it's turn, help the corporation to carry out it's strategic management practices in better manner.

Some of major reasons of using SBU approach are as follow:

- A scientific method of grouping the businesses of a multi-business corporation which helps the firm in strategic planning.
- An improvement over the geographical grouping of businesses and strategic planning based on locational units.
- An SBU is a grouping of related businesses that can be taken up for strategic planning distinct from the rest of the businesses.
- Grouping the businesses on SBU lines helps the firm in strategic planning by removing the ambiguity and confusion generally seen in grouping businesses.
- Each SBU is a separate business from the strategic planning standpoint. In the basic factors, viz., mission, objectives, competition and strategy-one SBU will be distinct from another.
- Each SBU will have it's own distinct set of competitors and it's own distinct strategy.
- Each SBU will have a CEO. He will be responsible for strategic planning for the SBU and it's profit performance; he will also have control over most of the factors affecting the profit of the SBU.

(b) There are three approaches that can be adopted to strategic planning:

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

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

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

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

(a) Strategic Planning
(b) Marketing Mix
(c) Participative Management
(d) Types of firms/organisations for which BPR can be applied

Answer:

9. (a) **Strategic Planning**

It is important to operate a planning process which will not only produce realistic and potentially rewarding plans but will also secure the support of all those involved in

implementing them. There are three approaches that can be adopted to strategic planning:

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

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

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

(b) **Marketing Mix;**

Marketing mix is the pack of four sets of variables namely, product variables, price variables, promotion variables and place variable.

Marketing Mix refers to the appointment of effort, the combination, designing and integration of the elements of marketing into a programme or mix which, on the basis of an appraisal of the market forces will best achieve the objectives of an enterprise at a given time.

Philip Kotler defines the marketing mix as the set of controllable variables and their levels that the firm uses to influence the target market. Such variables are:

(i) Product

(ii) Place

(iii) Price and

(iv) Promotion In addition, for service-there are three more P's They are:

  (a) People

  (b) Processes and

  (c) Physical evidence.

(c) **Participative Management:** Another strategic approach to employee's motivation is to adopt the system of involving employees in decision making. This will elicit employee's commitment in executing decisions. Further, the successful process of making a decision, executing it and then seeing the positive consequences can help satisfy one's need for achievement, provides recognition and responsibility and enhance self esteem.

Maintenance aspect of human resources is concerned with creation and maintenance of such working conditions in the organisation as are necessary to attract the most talented people, retain them and motivate them to give their best.

For this purpose, existing system of grade salary structure, fixed annual increments and automatic adjustments to inflation has to be replaced by performance linked reward system. Under the new system, employee's reward will be linked to the corporate objectives by pegging it to the employees' contribution towards achieving them. Time has come to develop a comprehensive reward system that splits employees' compensation between company standards, individual merit and team performance. Individual reward system based on attainment of functional specific targets bearing no relationship to corporate performance should give way to team based reward system which peggs rewards of entire manpower of the business division to the achievement of its goals.

(d) Types of firms / organisations for which BPR can be applied:

BPR could be implemented to all firms (manufacturing firms, retailers, services, etc.) and public organizations that satisfy the following criteria:

- Minimum Number of employees: 20 (at least 4 in management positions).
- Strong management commitment to new ways of working and innovation.
- Well formed IT infrastructure.

Business Process Reengineering could be applied to companies that confront problems such as the following:

- High operational costs
- Low quality offered to customers
- High level of "bottleneck" processes at pick seasons
- Poor performance of middle level managers
- Inappropriate distribution of resources and jobs in order to achieve maximum performance, etc.