Seat No.: ________ Enrolment No.___________

GUJARAT TECHNOLOGICAL UNIVERSITY

MBA – SEMESTER (4) – • EXAMINATION – SUMMER 2018

Subject Code: 2840007 **Date:25/05/2018**
Subject Name: Management Control Systems
Time:02:30 PM To 05:30 PM **Total Marks: 70**

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q. No. **06**

Q.1 (a) **One of the following is not an element of a control system**

1.
A. Detector B. effector
C. Silencer D. communication network

2. In BCG Matrix , 'Dog' implies to
A. Harvest B. divest
C. Hold D build

3. Accounting department in a company is a
A. revenue centre B. profit centre
C. Expense centre D. none of the above

4. Patent is an example of
A. tangible asset B. fictitious asset
C. intangible asset D. none of the above

5. Value chain analysis highlights
A. linkages with suppliers B. linkages with customers
C. process linkages within the firm D. all of the above

6. Customer focused key variables do not include
A. backorders B. key account order
C. cycle time D. customer retention

Q.1 **(b)** Explain the following terms : 04
Goal congruence
Revenue centre
Assessor
Investment centre

Q.1 **(c)** Discuss in brief about ' Stock Options' as tool of motivating employees. 04

Q.2 **(a)** Discuss in brief about Balance Score Card as a tool of performance measurement . 07

(b) "Internet has changed the very face of business to individual consumer sector ." Discuss validity in light of Amazon . 07

OR

(b) Explain in brief elements of a control system with the support of a diagram and citing an example . 07

Q.3(a) Explain advantages of profit centres and difficulties with profit centres . 07

(b). " The control of research and development centres present their own characteristic difficulties in relating results to inputs " . Discuss . 07

OR

Q.3 (a). Explain different types of profitability measures . 07

(b). Distinguish between efficiency and effectiveness in the context of a strategic business unit . 07

Q.4(a). Discuss the advantages of EVA over ROI as a tool of measurement of business performance . 07

(b) " Budget and forecasting are perceived as same but in reality they are different ". Discuss 07

OR

Q.4(a).Explain benefits and limitations of strategic planning . 07

(b). If you are asked to implement performance measurement system in a company , explain step by step approach that you will follow . 07

Q.5 14

" If I were to price these boxes any lower than $ 480 a thousand , " said James Brunner , manager of Birchi Paper Company's Thompson Division , "I'd be countermanding my order of last month for our salesmen to stop shaving their bids and to bid full-cost quotations . I've been trying for weeks to improve the quality of our business , and if I turn around now and accept this job at $430 or $ 450 or something less than $480 , I'll be tearing down this program I've been working so hard to build up . The division can't very well show a profit by putting in bids that don't even cover a fair share of overhead costs , let alone give us a profit."
Birch Paper Company was a medium sized , partly integrated paper company , producing white and kraft papers and paperboard . A portion of its paperboard output was converted into corrugated boxes by the Thompson Division, which also printed and colored the outside surface of the boxes . Including Thompson , the company had four producing divisions and a timberland division , which supplied part of the company's pulp requirements .

For several years , each division had been judged independently on the basis of its profit and return on investment . Top management had been working to gain effective results from a policy of decentralizing responsibility and authority for all decisions except those relating to overall company's policy . The company's top officials believed that in the past few years the concept of decentralization had been applied successfully and that the company's profit and competitive position definitely had improved .

The Northern Division had designed a special display box for one of its papers in conjunction with the Thompson Division , which was equipped to make the box . Thompson's staff for package design and development spent several months perfecting the design , production methods , and materials to be used . Because of the unusual color and shape , these were far from standard . According to an agreement between the two divisions , the Thompson Division was reimbursed by the Northern Division for the cost of its design and development work .

When all the specifications were prepared , the Northern Division asked for bids on the box from the Thompson Division and from two outside companies . Each division manager was normally free to buy from whatever supplier he wished , and even on sales within the company , divisions were expected to meet the going market price if they wanted the business .

During this period , the profit margins of such converters as the Thompson Division were being squeezed . Thompson , as did many other similar converters , bought its paperboard , and its function was to print , cut , and shape it into boxes . Though it bought most of its materials from other Birch Divisions , most of its materials from other Birch divisions , most of Thompson sales were made to outside customers . If Thompson got the order from Northern , it probably would buy its linerboard and corrugating medium . About 70 percent of Thompson's out-of-pocket cost of $400 for the order represented the cost of linerboard and corrugating medium . Though Southern had been running below capacity and excess inventory , it quoted the market price , which had not noticeably weakened as a result of the over supply . Its out-of-pocket costs on both liner and corrugating medium were about 60 per cent of the selling price .

The Northern Division received bids on the boxes of $ 480 a thousand from Thompson Division , $430 a thousand from West Paper Company , and $432 a thousand from Eire Papers Ltd . Eire Papers offered to buy from Birch the outside linerboard with the special printing already on it , but would supply its own inside liner and corrugating medium . The outside liner would be supplied by the Southern Division at a price equivalent of $90 a thousand boxes , and it would be printed for $30 a thousand by the Thompson Division . Of the $30,about$25 would be out-of-pocket costs .

Since this situation appeared to be a little unusual ,William Kenton , manager of the Northern Division , discussed the wide discrepancy of bids with Birch's commercial vice president . He told the vice president :" We sell in a very competitive market , where higher costs cannot be passed on . How can we expected to show a decent profit and return on investment if we have to buy our supplies at more than 10 per cent over he going market .?"
Knowing that Mr.Brunner on occasion in the past few months had been unable to operate the Thompson Division at capacity , it seemed odd to the vice president that Mr.Brunner would add the full 20 per cent overhead and profit charge to his out-of-pocket costs . When he was asked about this , Mr. Brunner's answer was the statement that appears at the beginning of the case .He went on to say that having done the developmental work on the box , and having received no profit on that , he felt entitled to good markup on the production of the box itself .
The vice president explored further the cost structures of the various divisions . He remembered a comment that the controller had a meeting the week before to the effect that costs which were variable for one division could be largely fixed for the company as a whole .
He knew that in the absence of specific orders from top management Mr. Kenton would

accept the lowest bid , which was that of the West Paper Company for $430 . However , it would be possible for top management to order the acceptance of another bid if the situation warranted such action . And though the volume represented by the transaction in question was less than 5 per cent of the volume of any of the divisions involved , other transactions would conceivably raise similar problems later .

Questions :

1. Why bid should Northern Division accept that is in the best interests of Birch Paper Company ?
2. Should Mr. Kenton accept this bid? Why or why not ?
3. Should the vice president of Birch Paper Company take action ?
4. In the controversy described , how, if at all , is the transfer price system dysfunctional ?Does this problem call for some change, or changes , in the transfer pricing policy of the overall firm ? If so , what specific changes do you suggest ?

OR

Q.5 **14**

Texas Instruments (TI) and Hewlett-Packard (HP) developed , manufactured , and sold high technology electric products . TI had three main lines of business in 1984 : components , which included semiconductor integrated circuits , semiconductor integrated circuits , semiconductor subassemblies, and electronic control devices: digital products , which included minicomputers , personal computers , scientific instruments , and calculators : and government electronics which included radar systems , missile guidance and control systems , and infrared surveillance systems . The three businesses generated 46 per cent , 19 per cent , and 24 per cent , respectively of TI sales in 1984 . HP operated in two main lines of business : computer products which included factory automation computers , engineering workstations , data terminals , personal computers , and calculators : and electronic test and measurement systems , which included instruments that would measure and display electronic signals , volunteers , and oscilloscopes . These businesses generated 53 percent and 37 percent respectively of HP's 1984 sales. Summary financial information for each company is presented in Exhibit 1.

Particulars	1980 ($)		1981($)		1982 ($)		1983($)		1984($)	
	TI	HP	TI	HP	TI	HP	TI	HP	TI	HP
Assets	2414	2337	2311	2782	2631	3470	2713	4161	3423	5153
Equity	1165	1547	1260	1890	1361	2349	1203	2887	1521	3545
Sales	4075	3099	4206	3578	4327	4254	4580	4710	5742	6044
Operating Profit	379	523	253	567	236	676	(288)	728	526	860
ROI	32.5%	33.8%	20.1%	30.1%	17.3%	28.8%	n.a	25.2%	34.1%	24.2%

Although TI and HP competed in similar industries , the strategies chosen by these two firms were very different . The Exhibit 2 summarizes five major concepts related to the content of strategy for both TI and HP . Perhaps the most significant distinction between TI and HP was their generic business . They pursued very different approaches . TI preferred to pursue competitive advantage based on larger , more standard markets and a long-term , low cost position . HP , on the other hand , sought competitive advantage in selected smaller markets based on unique , high-value , high-featured products . The functional strategies used to support those desired competitive advantages also differed .

	TI	HP
	Business Strategy	
	Competitive advantage for large , standard markets based on long-run cost position	Competitive advantage for selected small market based on unique , high value / high features products .
	Functional Strategy	
Marketing	High volume/low price Rapid growth Standard products	High Value/high price Controlled growth Custom features
Manufacturing	Scale economies and learning curve Vertical integration Large , low cost locations	Delivery and quality driven Limited vertical integration Small, attractive locations
R&D	Process and product Cost driven Design to cost	Products only Features and quality driven Design to performance
Financial	Aggressive Higher Debt Tight ship	Conservative NO debt Margin of safety (slack)

With regard to the product life cycle , TI favoured early entry , followed by expansion and consolidation of its position , resulting in a dominant market share when the product matured. HP, on the other hand , tended to create new markets but then exited (or introduced other new products)as cost-driven competitors entered and the market matured . It is not surprising that the two firms viewed prices and costs , the third area , differently . TI emphasized continual prize cuts to parallel cost reduction in order to build volume and take advantage of shared experience and learning . HP, on the other hand ,put less emphasis on manufacturing cost reductions and held prices longer so that profit margins expanded during the initial periods .The early returns generated allowed early exit from the market with good returns on investment and provided funds for further product research and development .

A fourth concept that highlights their differences in strategy is the product process matrix , which matches the needs of its custom and low volume markets , while TI concentrated on more capital intensive and cost-effective production processes (assembly lines and continuous flow operations) to supply its more standard , high volume markets .

A fifth concept, portfolio analysis ,further highlights differences in the firms' strategies . TI looked for a portfolio that included low-growth businesses with dominant market shares to provide cash for a select group of high growth businesses with lower market shares but with the prospect of becoming dominant , high growth businesses with lower market shares but with the prospect of becoming dominant , high growth businesses , and eventually "cash cows" . HO, on the other hand , wanted all high growth businesses with dominant market shares , and to reallocate major resources only to fund new **businesses . In fact , the** traditional solution to any profit problem at HP had been new products and new businesses .

Questions :

Given the difference between TI and HP , what would you expect would be differences between TI ad HP :

a) In planning and control systems .
b) In strategic planning systems
c) In budgeting systems
d) In reporting systems
e) In performance evaluation systems : and
f) In incentive compensation systems .

****