


<b>Name:</b> <b>Enrolment No:</b>		
<b>University of Petroleum and Energy Studies</b> <b>End Semester Examination December 2019</b>		
<b>Course: Procurement &amp; Supplier Relationship Management</b> <b>Programme: MBA (Logistics &amp; Supply Chain Management)</b> <b>Time: 03 hrs.</b>	<b>Semester: III</b> <b>Max. Marks: 100</b> <b>C.Code:LSCM 8008</b>	
<b>Instructions:</b> <b>Note: All sections are compulsory &amp; this question paper carries 4 sections.</b>		
<b>Section A (20)</b> <b>Attempt all questions in this section (2x10 = 20)</b>		
1.	Explain the following in two to three lines <ol style="list-style-type: none"> <li>a) Reverse price analysis</li> <li>b) Blanket purchase order</li> <li>c) Delivery triggered adjustment clause</li> <li>d) Total cost of ownership</li> <li>e) ISO 14000</li> <li>f) Malcom Baldrige National Quality award</li> <li>g) Strategic Sourcing</li> <li>h) ODM</li> <li>i) Reverse auction</li> <li>j) Second Bid Auction</li> </ol>	CO 1,2, 3
<b>SECTION B (20 Marks)</b> <b>Attempt any 4 question ( 4 X 5 = 20 marks)</b>		
2.	<ol style="list-style-type: none"> <li>(a) What are the various stages in a purchasing cycle process; also draw a purchase requisition flow diagram?</li> <li>(b) Discuss how the purchase of capital equipment differs from the purchase of routine supplies.</li> <li>(c) Supply base optimization must occur before long-term agreements can be put into place. What are the implications of this statement?</li> <li>(d) Enumerate different techniques of negotiation</li> <li>(e) Describe a potential situation in which a purchasing professional might be guilty of conflict of interest.</li> </ol>	CO 1, 2, 3,4
<b>SECTION C (30 marks)</b> <b>Attempt any 3 question (3X 10 = 30 marks)</b>		
3.	<ol style="list-style-type: none"> <li>(a) Discuss the issues/challenges in the case ‘Toyota Supplier Relations: Fixing the Suprima Chassis’. Also give your suggestions.</li> <li>(b) List the areas typically considered within purchasing’s span of control. Explain why it is important that purchasing have authority over each of these areas.</li> </ol>	CO –1, 2, 3, 4

	<p>(c) Discuss the most important elements that characterize the most successful efforts at integrating suppliers in new-product development. How do these factors contribute to success?</p> <p>(d) Discuss Key evaluation criteria during your first Supplier Visit.</p>	
	<p><b>SECTION D (30 marks)</b>  <b>Attempt all questions (15 x 2 =30 marks)</b></p>	
4.	<p>Q 4a. A publisher sells books to Barnes &amp; Noble at \$15 each. The marginal production cost for the publisher is \$2 per book. Barnes &amp; Noble prices the book at \$26 and expects demand to be normally distributed with a mean of 25,000 and a standard deviation of 6,000. Barnes &amp; Noble places a single order with the publisher. Currently, Borders discounts any unsold books down to \$4 and any unsold books sell at this price.</p> <ol style="list-style-type: none"> <li>i. How many books should Barnes &amp; Noble order?</li> <li>ii. What is their expected profit?</li> <li>iii. What is the profit that the publisher makes given Barnes &amp; Noble's actions?</li> </ol> <p>Hint: Formula for expected profit:</p> $\langle Profit \rangle = (p - s)\mu F_S\left(\frac{O - \mu}{\sigma}\right) - (p - s)\sigma f_S\left(\frac{O - \mu}{\sigma}\right) - O(c - s)F(O, \mu, \sigma) + O(p - c)[1 - F(O, \mu, \sigma)]$ <p>where O is the order quantity, F() (and <math>F_S()</math>) the cumulative (standard) density function and <math>f_S()</math> the standard normal density function.</p>	CO-2,3,
	<p><b>Q4b. CASE: Caterpillar Works with Delco to Achieve Mutually Beneficial Outcomes</b></p> <p>Over the last decade, Caterpillar Inc. has worked closely with Delco Electronics (now known as Delphi) to create a highly integrated relationship. It first approached Delco Electronics in 1997 with the opportunity to compete for the strategic position as its electronics supplier. Two factors were driving this opportunity. The first was that Caterpillar was dissatisfied with its current supplier. The second was that it wanted to reduce its in-house electronics capability to allow it to focus more on its core business. In the case of Caterpillar, the buyer has had two distinct roles.</p> <p>As a participant in the strategic supplier selection, the buyer was involved in an extensive process to evaluate suppliers and ultimately recommend to senior management a supplier to assume the role of strategic supplier. This process lasted six to eight months. It involved numerous visits by the team to Delco Electronics' headquarters, engineering facilities, and manufacturing facilities. It included quoting several different scenarios ranging from build-to-print to design-and-build. Quoting was a benchmarking exercise to understand capability and not an exercise to set pricing. The evaluation included several Delco Electronics visits to meet with Caterpillar's engineering groups and present its execution, quality, and cost reduction plans in the event of being selected. It included several rounds of discussions.</p> <p>Delco Electronics received word through the buyer that it had been selected to be the strategic supplier of electronics to Caterpillar. It was at this point that the buyer's role switched to that of executor of the strategy. At this point, Delco Electronics had not yet</p>	CO-3, 4,

been awarded any business. Shortly after the announcement, the buyer presented a preliminary draft of an agreement that started something like this: “Delco Electronics has agreed to supply Caterpillar 100% of its electronics requirements for the next five years. . . .” He also restated the strategy outlined during the selection process. This consisted of Delco Electronics starting immediately to supply existing products on a build-to-print basis and evolving to a design-and build basis. He also explained the Caterpillar business model for pricing.

From that point forward, the buyer’s role was to ensure successful execution of the strategy. The buyer spent his time ensuring that the two companies were developing the right working relationship. He had weekly meetings with all team members, ensured that deliverables were met, and escalated issues in both Delco Electronics and Caterpillar. He and other Caterpillar participants attended prototype builds at the Delco Electronics manufacturing site. When new programs were identified, he would attend the Sanctioning Body Approval event, the first formal gate in the Delco Electronics Product Development Process. His attendance was focused on ensuring that Delco Electronics was ready to start the development of the new program. Did it have resources in place? Did it understand the technical requirements? Was it linked up with the correct Caterpillar technical resources? Early in the relationship the team established a regular cadence of management meetings. The buyer always attended and assumed the prime Caterpillar lead role. On pricing there was no competitive bidding. There were discussions pertaining to volume and recovery of engineering content.

Much of this activity continues today at a much higher level of maturity as both companies have nourished the relationship. Throughout, Caterpillar never lost any sleep over the success of Delco Electronics as a supplier. The buyer clearly felt responsibility for the outcome. There was no hand-off to others in the organization or to other organizations. Today, Delphi is involved in more than 20 electronics programs with Caterpillar worth millions of dollars. As the business has grown, the buyer’s office has expanded to include a senior buyer, two buyers, and a person involved in quality and readiness issues. Although there have been changes in personnel over the years, clarity of ownership has not changed 10 years later!

- i. Review Caterpillar’s process for early supplier involvement. What was critical to the success of the relationship?
- ii. How important was the role of specific individuals involved in the discussion? What does this say about the importance of trust in managing buyer-supplier relationships in such an environment, and the role of individuals in the relationship?
- iii. How were the risks minimized? Do you believe the benefits in this case outweighed these potential risks?