

National Exams December 2004
98-CS-3-Management Concepts for Engineers
3 hours duration

Notes:

1. If doubt exists as to the interpretation of any question, the candidate is urged to submit with the answer paper, a clear statement of any assumptions made.
2. This is a Closed Book exam. No calculators are allowed for this exam.
3. Any five questions constitute a complete paper. Only the first five questions as they appear in your answer book will be marked.
4. All questions are of equal value.
5. Write your answers in point-form whenever possible, but fully.

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1. (i) What are the steps followed in a collective bargaining process?
(ii) Explain the methods that are followed for settling differences when the parties (management and labour union) are at a stalemate.
(iii) Childcare, parental leave and flexible working hours are important questions for many parents in the workplace. Should the businesses and government agencies be required to provide these? Do you think that legislation is required to meet these requirements? Is there any other way to achieve this?
2. (i) What are the basic differences between Frederick Taylor's scientific management and the Elton Mayo's motivation theory generated by the Hawthorne studies?
(ii) Explain the characteristics of work or job that affect motivation and performance.
(iii) What is your understanding of goal-setting theory and management by objectives (MBO)?
3. (i) Explain the concept of marketing.
(ii) Discuss briefly the four types of utility (value) that marketing adds during the process of moving goods and services from producers to customers.
(iii) How do businesses segment the consumer market?
4. (i) Explain the manner by which the company can deal with people or worker problems while introducing a new technology, such as, CAD/CAM.
(ii) Why is service productivity not increasing as rapidly as manufacturing productivity?
(iii) Explain the concepts of: (a) computer-aided design (CAD), (b) computer-aided manufacturing (CAM) and (c) computer-integrated manufacturing (CIM) and their impact on manufacturing productivity
5. (i) Identify and describe several sources of long-term capital.
(ii) Explain the reasons for fluctuation on the prices of shares in stock market.
(iii) Discuss the three components of master budget: (a) an operating budget, (b) a capital budget, and (c) a cash budget.
6. (i) Managers and workers are demanding more from jobs in the way of flexibility and responsiveness, especially in the context that many more women are working. Discuss the several new or renewed ideas that have emerged to deal with the present situation.
(ii) Discuss the methods that are generally used to develop managerial skills. How does networking fit into this process?
(iii) Discuss how the special benefits provided by the company affect worker motivation and the competitiveness in the market.

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7. Culinar Inc., the \$587-million-a-year junk food giant had no formal TQM program at all. Jean-Rene Halde, appointed CEO in 1987, scratched it because it was “billed as the solution to all our problems but it was only one solution to some of them.” Nobody would talk about it at Culinar and “TQM has become a dirty acronym.” The 1992 *Globe and Mail* article looked at three Canadian companies that have benefited from TQM. Toronto based Cadet Uniform Services Ltd. uses a modest-sized organization with few management layers and sales of \$30 million. Winnipeg’s Reimer Express Lines Ltd. had sales of more than \$250 million, 1,400 vehicles, and 1,000 employees. It has a complex operation with facilities across the country. General Electric Canada Inc. has an aircraft-engine component plant in Bromont, Quebec, with 600 employees. Like Cadet, it has few layers of management. Did these companies have anything in common that enabled them to adopt TQM successfully? All three had: (a) top executives who were highly committed to the program, and (b) cultures that were inherently TQM-friendly. They possessed many TQM values and some of its practices. Answer the following questions:
- (i) Should TQM be applied very selectively? Should only companies with the “right” climate, as noted in the case, attempt to obtain its benefits?
 - (ii) Some managers claim that TQM is just a fancy name for practices they have always employed - concern with quality, participative style, team-work, and so on. Does TQM heighten everyone’s consciousness about these issues?
 - (iii) In the high-tech world of production and operations that now prevails, is there less need for TQM because fewer people are employed? Or is TQM even more important precisely because of this?