

Thursday 22 April 2004

9 to 12

---

PAPER 2

*Answer not more than **four** questions.*

*All questions carry the same number of marks.*

*The **approximate** percentage of marks allocated to each part of a question is indicated in the right margin.*

*There are no attachments.*

***You may not start to read the  
questions printed on the subsequent pages of  
this question paper until instructed that you  
may do so by the Invigilator***

1 Why are innovative entrepreneurial companies often taken over by an established corporation? What problems tend to arise in the course of implementation of an acquisition and how can these problems be addressed? Make use of examples from case studies to illustrate your argument. [100%]

2 (a) Briefly discuss the main reasons why manufacturing organisations measure performance. [30%]

(b) Briefly describe Kaplan and Norton's Balanced Scorecard and discuss how it can help the design of a performance management system. [40%]

(c) When defining a performance measure, what needs to be specified to ensure that it can be used effectively to manage an operation? [30%]

3 (a) Describe the different stages of the product lifecycle. [15%]

(b) Discuss whether the concept of the product lifecycle is relevant to practising Marketing Managers. [30%]

(c) Using the adoption life cycle concept, what key marketing issues are typically faced by a high-tech company when launching new products? Illustrate your answer with reference to the DVD (Digital Video Disc) market. [30%]

(d) What changes would you expect to see in the competitive environment as markets mature? Illustrate your answer with reference to the CD (Compact Disc) market. [25%]

4 (a) Describe what is meant by the 'S' curve in connection with technology lifecycles. [15%]

(b) Explain what is meant by 'disruptive' and 'sustaining' technology. [20%]

(c) Draw 'S' curves for the development of **two** of the following technology based markets areas, showing the introduction and lifecycle of the relevant technologies:

- (i) aerospace propulsion systems;
- (ii) amateur photography equipment;
- (iii) computer display devices.

For both of the market areas you choose, explain the form of the 'S' curve that you have drawn and discuss which technologies you consider to be disruptive and sustaining, giving your reasons. [65%]

- 5 (a) Explain what is meant by a V plant, an A plant and a T plant. [10%]
- (b) What are the principal control issues facing each of these types of plant? [25%]

You have been asked by the logistics manager of a T plant to help improve its delivery performance. The manager is under pressure from customers for missing too many delivery promises. Before you go to see the logistics manager, you are supplied with the following information. The plant has three suppliers, one is a V plant, one an A plant and one a T plant. The table below is a Bill of Materials showing which raw materials (the rows) are used by which finished products (the columns), and how much of each raw material is required by each finished product. The V plant supplies raw materials V1 and V2. The A plant supplies raw material A1. The remainder, T1 to T7, are supplied by the T plant. Thus, for example, the table shows that raw material V1 is used by finished products F1, F3, F5, F6, F8, F9 and F10. Moreover each item of F1 requires five of V1.

The lead-time from the V plant is long but the delivery pattern is reliable. The A plant has intermediate length delivery times but is unreliable. There is no fixed pattern from the T plant. T1, T2 and T4 are on very short lead times, T3 and T5 are on medium lead times, T6 and T7 are long. Moreover deliveries of T3, T4, T5 and T7 are unreliable.

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
V1	5		5		10	5		15	20	20
V2	10	10		5		20	5		15	
A1					4					4
T1	1	2	1	1	1	2	1	1	2	1
T2	2	2			2					
T3		8			8				6	
T4				12						
T5	3			4	5	2		2		3
T6	1									
T7		2	5				5	10		10

(cont.)

(c) Develop an initial analysis of lead-time performance, commonality and likely demand for parts, so that you can prioritise the products that you would like to investigate. [30%]

(d) What short term and long-term options might you want to consider in order to improve the situation? You may assume that there are roughly equal levels of customer demand for each of the finished products. [35%]

6 It is the general perception that UK Manufacturing companies are facing difficult times. The impression from the media would suggest that there is no future for UK manufacturing, despite the fact that the UK has a number of world leading manufacturing sectors. Discuss the challenges facing manufacturing industries in advanced industrial economies, giving specific examples of how companies, and/or sectors, are responding to the challenges of global manufacturing. [100%]

**END OF PAPER**