

MARKSCHEME

November 2002

BUSINESS AND MANAGEMENT

Higher Level

Paper 1

SECTION A

1. **Analyse how the use of new information and communication technologies could help improve communications, operations and organizational control within *Open Views*.** **[10 marks]**

There is evidence of poor communication within *Open Views*. Joseph seems to make decisions based on insufficient information. Communication is “top-down” and most information is handled on the telephone. The business is also quite fragmented with four offices and the *Warm Breezes* complex; each with a separate management structure. Information and computer technologies would include mobile telephones and laptop computers, pagers, the internet, teleconferencing, wireless and satellite systems and Local Area and Wide Area networks (LANs, WANs). The firm might set up its own website, including a webcam of the resort.

The candidate could examine many aspects of communications, operations and organizational control, such as:

- Financial and cost control
- Day-to-day communication of information such as holiday availability and bookings
- Communication between branches, and branches and *Warm Breezes*
- Communication between the management teams, e.g. Marc Leroux and Joseph

The answer needs to address how the technologies singly, or in conjunction, would help improve the operations of the business.

[9 to 10 marks]

Several existing problems are identified and the answer analyses how a range of technologies will help improve communications, operations, and organizational control within *Open Views*.

[6 to 8 marks]

Information and communication technologies are identified and linked to the needs of *Open Views*. There is an attempt to analyse how these technologies can improve some aspects of communications, operations and organizational control.

[3 to 5 marks]

Information and communication technologies are identified, but not well linked to the needs of *Open Views*. There is a limited attempt to describe how these technologies can improve some aspects of communications, operations and organizational control.

[1 to 2 marks]

A generic answer, which describes some technologies, but in a limited fashion.

2. Assuming that Option 2, to develop a self catering complex at the *Warm Breezes* resort, is chosen,
- (a) discuss an appropriate marketing mix to support the launch of the new complex, and
 - (b) compare this to the current marketing mix, assessing the likely impact on *Warm Breezes*' image and customer profile. [12 marks]

The candidate needs to address all elements of the marketing mix; that of price, product, place and promotion. The issues of people, process and physical evidence would enhance the answer. The contrasts to the existing mix need to be highlighted. The new mix would probably be the result of more extensive market research.

Price: Although still likely to be a premium price to reflect a Caribbean holiday it will have to be less than the existing *Warm Breezes* complex to reflect the lower quality accommodation, reduced services and self-catering. The pricing strategy may need to be more competitive as similar accommodation is offered nearby and it will need to reflect the likely lower income levels of the customers.

Product: The cottages should reflect the image of *Warm Breezes* and not detract from the rest of the complex. They would need to include self catering facilities.

Place: The distribution of the sales may need to be through different brochures from *Warm Breezes* (or a different section) and possibly sold through different outlets. They may even be offered to other travel agents. Clearly the location is fixed by the complex itself. Sales may be through a website.

Promotion: Since the cottages are additional to the existing rooms, new customers will need to be found. Repeat booking is not an option in the early years. The customer profile may need adapting and more active marketing undertaken. Advertising would have to be both informative and persuasive. Emphasis may be placed on developing a clearer and more cohesive corporate image. Direct mail may still be an option, but different postcodes may be needed. Alternatively the world wide web may be used through a website or banners on other sites.

Decisions need to be made about the accessibility of all of the complex to the new customers. Different staff may be trained to offer the new client services. Alternative holiday options may be appropriate. Throughout the whole process the image of the existing complex must not be compromised. Clients pay for their exclusive and luxurious holiday and must not feel that others are experiencing the same benefits at a lower cost.

[10 to 12 marks]

At least three elements of the marketing mix are identified and discussed (“place” may be rather limited or omitted). The best answers may refer to people, process and physical evidence. Comparisons are made with the existing marketing mix and a sensible assessment made of the effects on image and customer profile. Marketing terms are employed.

[6 to 9 marks]

Elements of the mix are discussed but the emphasis may be placed on one or two such as promotion and pricing. The effect on image and customer profile is addressed. Marketing terms are employed. Answers which address only the marketing mix and fail to make comparisons with the existing mix can earn no more than **[7 marks]**.

[3 to 5 marks]

There is a limited discussion of the mix, tending to unsupported description. The use of marketing terms is restricted. The effect on image and customer profile is very general.

[1 to 2 marks]

The answer is generic and limited. There must be some relevant marketing theory employed. Elements such as the effect on image and customer profile may be absent.

3. (a) **Identify *three* problems created by the location of *Warm Breezes* in the Caribbean and discuss appropriate strategies that the local government could put into action to reduce these.**

[10 marks]

Problems include:

- damage to the local environment including the reef and palms
- exploitation of local labour
- sanitizing and adaptation of the local culture and language
- importation of western culture and separation from local population
- profits sent overseas
- effects on balance of payments and local currency

Possible actions by the local government:

- targets for employment of local managers linked to expansion plans
- implementation of strict employment legislation
- minimum wage rates introduced
- higher taxes on exported profits
- arranged negotiations with *Warm Breezes* involving local business, unions and Government over the existing and future operations
- strict environmental and ethical guidelines agreed with *Warm Breezes*
- negotiated access to resorts facilities for some of the population
- The government could use financial incentives, such as grants and subsidies, to encourage changes.

Given the ease with which firms can move operations and the effect on employment and the local economy, it would be best for changes to be negotiated rather than imposed. Manjit is already considering alternative location arrangements. The use of grants and subsidies is certainly a common method of delivering change.

The local environment and the island's ecology are vital for the tourist trade and future wealth and income. Protection of this is necessary even if the consequences in the short run may be damaging.

[8 to 10 marks]

Three problems are identified with a well argued and illustrated discussion of actions that the local government may take to reduce the problems.

[3 to 7 marks]

The problems are identified, but the actions by the local government are described rather than discussed.

[1 to 2 marks]

A descriptive and limited answer.

- (b) **Using a PEST framework analyse the opportunities and threats facing *Open Views* over the next phase of its development.** **[12 marks]**

Political/legal environment

Opportunities:

- financial support from local governments

Threats:

- legal controls on the behaviour of the firm e.g. employment and environmental legislation
- legal action for health and safety breaches
- influence of pressure groups opposed to environmental damage
- opposition from local trade unions and businesses in the Caribbean
- opposition from trade unions in several countries

Economic environment

Opportunities:

- new market niches in the Caribbean or worldwide
- economic expansion in the Caribbean region
- high unemployment rates forcing down wages and costs

Threats:

- competition from other travel firms
- slowdown of the European and US economy
- increasing costs, such as oil

Social/cultural environment

Opportunities:

- changing demographic patterns resulting in younger consumers with more individual consumption patterns
- more emphasis on conspicuous consumption
- consumers looking for unusual, unspoilt holiday locations

Threats:

- social unrest in the Caribbean and opposition to cultural effects

Technological environment

Opportunities:

- improved airplane technology reducing flight times and improving comfort
- greater access to information via the world wide web
- greater social acceptance of marketing and booking on line, with the opportunity to view new locations

Threats:

- “me-too” products copying *Open Views*

[10 to 12 marks]

The PEST analysis contains at least one entry in all four elements with an attempt to consider opportunities and threats within each. The importance of each is supported by discussion and reference to the case study.

[7 to 9 marks]

The PEST analysis may exclude one element and the entries may not cover both opportunities and threats. There should be an attempt to analyse the opportunities and threats by reference to the case study.

[3 to 6 marks]

The PEST analysis may exclude one or more element and the entries may not cover both opportunities and threats. The PEST is essentially descriptive with little reference to the case. The PEST may not be structured at the bottom end of the band.

[1 to 2 marks]

The PEST may not be structured in clear elements or may be missing and a scattergun approach is employed. There is a descriptive approach with little reference to the text.

4. (a) **Analyse how the actions of informal groups within *Warm Breezes* could damage both its reputation and profits.** [6 marks]

An informal group is one that is not sanctioned by, or set up by the company. In the case of *Warm Breezes* the local employees are likely to form an informal group, because of their culture and position within the business. It is likely that this group is disaffected as indicated by the high staff turnover and antipathy towards Peter Storm, who is thought of as unapproachable and patronising. There is also discontent that local staff are not achieving senior positions, and also about the working conditions.

Complaints about slow service and rude staff are increasing and this could have a devastating effect on the image of *Warm Breezes*. *Warm Breezes* is an exclusive holiday justifying its premium prices. Slipping standards and poor service will further erode satisfaction levels and may negatively affect word of mouth endorsement. As a result sales bookings and profits may fall.

[5 to 6 marks]

There is a clear understanding of the nature of an informal group and there is a good analysis of how their actions may affect *Warm Breezes*' reputation and profits.

[3 to 4 marks]

There is an understanding and description of how negative behaviour could affect *Warm Breezes*.

[1 to 2 marks]

There is some understanding of the likely groups involved, with a limited description of effects on *Warm Breezes*.

- (b) **Evaluate to what extent the recruitment and training of local managers linked to a total quality culture managerial approach, would benefit the future development and growth of *Warm Breezes*.** [10 marks]

The recruitment and training of local staff would go some way to addressing the concerns of the local government, trade unions, local businesses and employees. It may also reduce the high level of staff turnover, which is affecting service levels and standards.

Warm Breezes is seeking finance from the local government to fund its expansion plans. Improved labour relations will certainly help their funding application. It could be argued, however, that recruiting local staff would be detrimental in that they would lack experience of running such a large business and dealing with overseas tourists. The best person for the job may not be recruited as a result.

The introduction of a total quality culture (TQC) will involve empowering the employees and making quality the centre of all activities. This should help maintain *Warm Breezes*' exclusive image. It would also reduce the risks associated with hygiene and safety lapses and should improve satisfaction ratings and sales. The expansion plans will require additional staff and the success of the venture will probably rest on the quality of the staff involved. Training costs may be higher as a result.

[7 to 10 marks]

The answer evaluates the recruitment and training of local staff and the introduction of TQC managerial techniques and the effects on the development and growth of *Warm Breezes*. Examples are used from the case study.

[3 to 6 marks]

The answer tends to describe or explain rather than evaluate and one or more elements are examined in a brief or limited manner. A TQC may not be mentioned, or understood.

[1 to 2 marks]

A limited and generalized response.

SECTION B

5. (a) (i) **Explain why firms depreciate their fixed assets.** **[2 marks]**

Firms depreciate assets to represent the declining value of the asset through wear and tear, consumption and other reduction in the useful life of an asset e.g. obsolescence. The depreciated figure provides a “true and fair view” of the asset value. The effect is to reduce the net profit available for distribution to shareholders and, if considered necessary to set aside sufficient funds available within the firm to replace the asset when it reaches the end of its useful life.

[2 marks]

The answer explains that depreciation reflects “wear and tear” or obsolescence and adds one more relevant reason.

[1 mark]

There is only one relevant reason given or two or more points listed, but not explained.

- (ii) **Using straight line depreciation, calculate the annual depreciation charge for the new commercial centre.** **[2 marks]**

$$\text{Straight Line Depreciation} = \frac{\text{Historical cost} - \text{residual value}}{\text{Estimated life of the asset}}$$

$$= \frac{\$1\,250\,000 - 0}{50 \text{ years}}$$

$$= \$25\,000 \text{ per annum}$$

[2 marks]

The answer is correct and working is provided.

[1 mark]

The answer is correct without working or the answer is incorrect, but the method is accurate.

- (b) **Produce projected profit and loss accounts and balance sheets from the financial projections for the years 2002 and 2003.** **[6 marks]**

Profit and loss and trading account for the years ending 31 December:

	2002	2003
	\$m	\$m
Sales revenue	46.2	56.8
<i>less</i>		
cost of goods sold	7.4	8.7
Gross profit	38.8	48.1
<i>less</i>		
overheads	36.6	42.8
Net profit	2.2	5.3

Balance Sheet as at 31 December:

	2002		2003	
	\$m	\$m	\$m	\$m
Fixed assets	48.0		50.2	
<i>Plus</i>				
Current assets	4.4		5.6	
<i>less</i>				
Current liabilities	<u>3.2</u>		<u>3.4</u>	
Net current assets	<u>1.2</u>		<u>2.2</u>	
Total/net assets employed	<u>49.2</u>		<u>52.4</u>	

Represented by:

Share capital	30.0	30.0
Reserves	7.8	8.4
Long term liabilities	<u>11.4</u>	<u>14.0</u>
Total capital employed	<u>49.2</u>	<u>52.4</u>

[5 to 6 marks]

Both years profit and loss accounts and balance sheets are accurate within a suitable format.

[3 to 4 marks]

There may be up to two errors in calculation for **[4 marks]** and the format may be poor for **[3 marks]**.

[1 to 2 marks]

Several errors in calculation and format are made. For **[1 mark]** the accounts must have some resemblance to the correct format.

- (c) Using appropriate ratios, analyse how the building of the commercial centre will affect the liquidity, efficiency and performance of *Warm Breezes*.

[10 marks]

Financial Summary

- Sales revenue only increases by 14.92 % from 2001 to 2002, but by a much healthier 22.94 % between 2002 and 2003.
- During the same periods cost of goods sold increase by 21.31 % and 17.56 %, and overheads by 19.6 % and 16.94 %.
- Gross profit improves in both years, but net profit declines in 2002 to \$2.2m, but increases significantly in 2003 to \$5.3m after the commercial centre is completed.
- Liquidity improves by 2003.
- Net assets employed continues to increase.
- Reserves increase by \$800 000 in 2002, representing a higher retained profit to help finance the new commercial centre.

Ratio Analysis:

Profitability

	2002	2003
1. Gross Profit Margin		
$\text{GPM} = \frac{\text{gross profit}}{\text{Sales}} \times 100$	$\frac{38.8}{46.2} \times 100 = 83.98 \%$	$\frac{48.1}{56.8} \times 100 = 84.7 \%$
2. Net Profit Margin		
$\text{NPM} = \frac{\text{net profit}}{\text{sales}} \times 100$	$\frac{2.2}{46.2} \times 100 = 4.76 \%$	$\frac{5.3}{56.8} \times 100 = 9.33 \%$
3. Return on Capital Employed		
$\text{ROCE} = \frac{\text{net profit}}{\text{capital employed}} \times 100$	$\frac{2.2}{49.2} \times 100 = 4.47 \%$	$\frac{5.3}{52.4} \times 100 = 10.11 \%$
4. Mark-up		
$\frac{\text{gross profit}}{\text{cost of goods sold}} \times 100$	$\frac{38.8}{7.4} \times 100 = 524 \%$	$\frac{48.1}{8.7} \times 100 = 553 \%$

Efficiency/Activity ratios:

$\text{Asset turnover} = \frac{\text{sales}}{\text{net assets}}$	$\frac{46.2}{49.2} = 0.94 \text{ times}$	$\frac{56.8}{52.4} = 1.08 \text{ times}$
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Liquidity ratios:

$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$	$\frac{4.4}{3.2} = 1.375$	$\frac{5.6}{3.4} = 1.65$
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Gearing ratio:

$\frac{\text{Long-term loans}}{\text{Capital employed}} \times 100$	$\frac{11.4}{49.2} \times 100 = 23 \%$	$\frac{14}{52.4} \times 100 = 26.7 \%$
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- Gross and net profit margins decline in 2002 over 2001 reflecting the relative increase in cost of goods sold and overheads, but improve in 2003.
- Reducing profitability is also reflected in a falling ROCE ratio and mark-up in 2002. However, by 2003 there is a dramatic improvement reflecting the additional revenue provided by the commercial centre and better cost control.
- Assets continue to be used more efficiently, producing more sales per dollar invested. This may be the result of economies of scale.
- Liquidity worsens again in 2002 over 2001, the current ratio remaining below the rule of thumb of 1.5/2 : 1. However, liquidity improves in 2003 and moves into the acceptable range.
- The company remains relatively low geared, although this creeps up in 2003 as loans are taken out to help fund the expansion.

There would be concerns about declining profitability in 2002, but the company must be encouraged by the more positive results following the building of the commercial centre.

[8 to 10 marks]

The financial and ratio analysis is detailed and accurate. At least four ratios are calculated and applied for **[10 marks]**. There is a recognition that the trend of falling sales, increasing costs and lower profits are reversed by the building of the commercial centre.

[3 to 7 marks]

The financial and ratio analysis is accurate at the upper end of the band. Discussion may be more limited and the number of ratios calculated may be less or the interpretation less detailed at the lower end of the band.

[1 to 2 marks]

Some financial interpretation is attempted, but it is very limited, and possibly inaccurate.

6. (a) **Define a dummy activity and explain the purpose of the two dummy activities shown on the network.** **[3 marks]**

A dummy activity is an activity that uses no time or resources, but is included in a network to maintain the logic of the diagram and the relations between activities.

In the case of the commercial centre, the first dummy ensure indicates that the building and plastering of the interior walls, cannot be started until both the plumbing and the electrics are installed. The second dummy is included to show that the fixtures and fittings and the furnishing cannot be attempted until the buildings are fully decorated.

[3 marks]

A dummy is accurately defined with references to both resources and time and the purpose for the two dummies is well explained.

[2 marks]

A dummy is accurately defined, but the purpose of the two dummies is not clearly explained, or vice versa.

[1 mark]

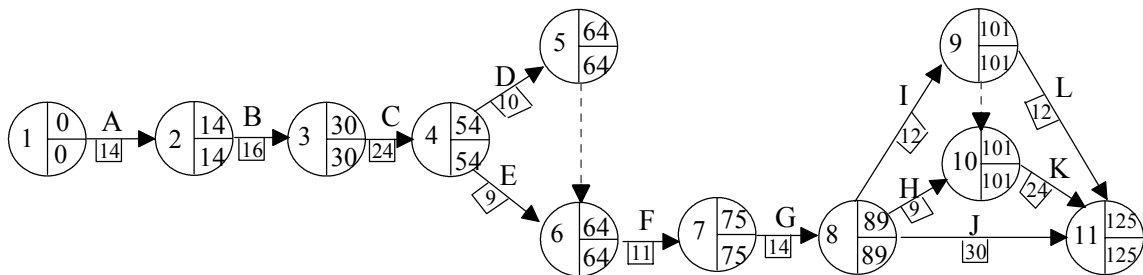
There is only an attempt to define a dummy or explain the purpose of the two dummies, but neither are well illustrated and lack accuracy.

- (b) (i) **Redraw the network (figure 2) calculating the earliest starting time, latest finishing time and total float for each activity and the duration of the project.**

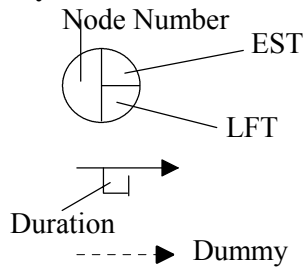
[8 marks]

Activity	EST	LFT	Duration	Total Float	Critical?
A	0	14	14	0	Y
B	14	30	16	0	Y
C	30	54	24	0	Y
D	54	64	10	0	Y
E	54	64	9	1	N
F	64	75	11	0	Y
G	75	89	14	0	Y
H	89	101	9	3	N
I	89	101	12	0	Y
J	89	125	30	6	N
K	101	125	24	0	Y
L	101	125	12	12	N

The total duration of the project is **125 days**.



Key



[8 marks]

The network is accurately completed with EST, LFT, total float and duration shown correctly.

[6 to 7 marks]

The network is competently completed, but there may be up to three errors in calculation.

[3 to 5 marks]

There may be many errors, but it is clear that the candidate has some understanding as to how EST, LFT and duration are calculated.

[1 to 2 marks]

Very few figures are accurate and it is evident that the candidate has minimal understanding of the processes involved in calculating EST, LFT, float and duration.

(ii) Identify the critical path.

[1 mark]

Critical path = A, B, C, D, dummy, F, G, I, dummy, K

Award **[1 mark]** if the correct critical path is identified

N.B. Do not double penalize. Accept the critical path using the candidate's incorrect diagram in part (i), provided the critical path follows the correct rules.

(c) If Peter wishes to reduce the project by 10 days, calculate the cheapest method of achieving this, explaining your method of reducing the project duration.

[8 marks]

6 Days can be saved from the project by cutting activity K. This can be done by transferring resources from activity L or hiring additional labour. The total cost is:

$$6 \text{ day @ } \$4\,200 \text{ (Skill T)} = \$25\,200$$

At this point activity J also becomes critical. To reduce another day from activity K would only reduce the project further by also cutting a day from Activity J. The joint cost of this would be \$9 300 per day. A similar situation exists with activity I (skill group R).

To reduce the project further a cheaper alternative needs to be found. The next cheapest alternative is skill group N at \$5 100 per reduced day. The maximum reduction on this skill group is 2 days, but after reducing activity D by one day, activity E also becomes critical. This means reducing by an additional day would cost \$10 500, so only one day is from N is reduced:

$$1 \text{ day @ } \$5\,100 \text{ (Skill N)} = \$5\,100$$

The remaining 3 days need to be taken from activities on the critical path. The only activities in this category are in the M skill group:

$$3 \text{ days @ } \$7\,500 \text{ (Skill M)} = \$22\,500$$

$$\text{Total cost of saving 10 days is } \$25\,200 + \$5\,100 + \$22\,500 = \$52\,800$$

[7 to 8 marks]

The cheapest method is identified accurately with clear explanation and supporting working.

[5 to 6 marks]

There may be a few inaccuracies in the chosen method, but the reasoning is sensible, even though some logical relationships are missed.

[3 to 4 marks]

There may be some inaccuracies in the chosen method; the explanation of working may be limited.

[1 to 2 marks]

There is considerable confusion, but there is some logic behind the choice of method.
