

MARKSCHEME

November 2004

BUSINESS AND MANAGEMENT

Higher Level

Paper 1

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SECTION A

1. (a) **Explain what is meant by a “more team-based and flexible approach to production” (line 124).** **[4 marks]**

Team-based manufacturing will mean that all stages of production are carried out by teams of workers who take responsibility for all aspects of the production of each yacht. The teams will follow the yachts around the factory rather than staying in the same place and carrying out the same part of the process for each yacht. This will require a more flexible approach to production and will mean that workers will need to be multi-skilled and therefore able to carry out a wide range of tasks in the production of yachts. Flexibility will also require low resistance to change among employees.

[3 to 4 marks]

A full explanation of both team-based production and flexibility with reference to the case study.

[1 to 2 marks]

An explanation of either team-based production or flexibility, or a basic explanation of both but with little or no reference to the case study.

- (b) **Discuss the practical issues and challenges the production director, Annette Manning, may face in implementing new approaches to quality management.** **[10 marks]**

One of the key quality management systems they could introduce is TQM. TQM means establishing a culture of quality throughout the workforce and at all levels in the firm. It will mean using teamwork to solve quality problems at all stages in production and will involve all the different departments of the firm co-operating to ensure a consistent quality product and service. Other quality management approaches may require the same.

The problems that *Riveau Yachts* may face in implementing this may be

- it will require co-operation and commitment at all levels and there may be resistance from some longer-established employees and perhaps some of the management/board
- it will be costly – the setting up of quality circles and other quality processes will require a significant investment of time from all departments
- it will take some time to see the returns of a TQM approach and if just short-term financial (quantitative) measures are used to judge it then it may not last
- it will require considerable retraining of the workforce
- it will require an effective communications infrastructure
- *Riveau Yachts* will need to ensure that their dealer network are also implementing a TQM approach in their dealings with customers and this may cause further communication and training problems
- it may lead to greater bureaucracy and paperwork and will also require regular quality audits/checks – this may meet some resistance
- it may lead to excessive focus on the production process rather than the product itself
- *any other relevant point.*

Candidates may also refer to other quality management approaches such as ISO 9002.

[8 to 10 marks]

A full discussion including a reasonable number of relevant problems that are directly related to the case study. The discussion has made extensive use of relevant subject theories and concepts and these have been appropriately applied to the case study information.

[6 to 7 marks]

A good discussion of a number of relevant problems that are related to the case study. The discussion has generally used subject theories and concepts appropriately though in some instances these may not be appropriately applied to the case study.

[4 to 5 marks]

Some reasonable discussion of a number of problems though these may not be fully related to the case study in all instances. There is some attempt to correctly apply subject theories and concepts, though these may not always be relevant to the case study.

[1 to 3 marks]

An essentially descriptive answer – perhaps with a list of a few problems without adequate explanation of how they relate to the case study. The answer scarcely refers to the case study and makes only very limited use of subject theories and concepts.

2. (a) Explain *three* factors that have contributed to rising labour turnover at *Riveau Yachts*. **[6 marks]**

Labour turnover is a measure of the rate at which employees are leaving *Riveau Yachts*. Could be worked out by dividing the number of leavers each year by the average number of staff and then multiplying by 100 to express as a percentage.

The rising labour turnover may be caused by

- low staff morale – perhaps connected to authoritarian leadership of Jacques and Yves, or perhaps caused by lack of variation in work (created by tall hierarchy and low span of control, therefore giving a lack of pride in work and no sense of empathy with aims and objectives of firm)
- rural location of firm – younger workers are attracted away to jobs in nearby towns and cities
- relatively lower wages causing a shift to urban jobs, or better paid alternatives
- skills required being skills no longer seen as relevant or useful to younger employees (or ones they are unwilling to learn)
- external factors – high economic growth offering many other opportunities elsewhere, high housing costs, lack of local amenities/services
- lack of career progression available at *Riveau Yachts* – causing staff to move away for promotion opportunities
- lack of empowerment – employees don't feel they are given responsibility for the work they are doing
- increasing average age of staff leading to increased retirement, lack of challenge
- *any other relevant point.*

[5 to 6 marks]

A clear explanation of three factors with a number of illustrations of why it might be rising. Extensive reference is made to the case study and most points are in the context of the case material.

[3 to 4 marks]

Some explanation of why labour turnover may be rising. At least two factors contributing to higher turnover are explained. Some reference is made to the case study, though some points may be more general and not fully in the context of the case material.

[1 to 2 marks]

Some descriptive points or a list of factors causing labour turnover to rise, but perhaps not related to the case material to any great extent.

- (b) **Using the motivation theories of Maslow and Herzberg, assess how the human resource manager, Danielle Jarman, can improve the motivation of workers at *Riveau Yachts* and reduce labour turnover. [12 marks]**

Candidates should give a clear summary of the work of Maslow and Herzberg looking at the main findings and implications of their work. Maslow's hierarchy of needs and Herzberg's two-factor theory of job satisfaction need to be sensibly applied to the case material and possible improvement strategies. Some relevant ways for this to be done may be

Maslow

- employees of *Riveau Yachts* may be achieving basic levels on hierarchy as the firm has been growing well and seems relatively secure in its position. Firm can help ensure this by involving staff in long-term planning enhancing the feeling of security and involvement
- however, rising labour turnover and average age of workforce may be an indication that higher needs are not being met
- tall hierarchy and low span of control and traditional production methods may lead to low variation in production processes carried out and this may prevent workers reaching higher levels of needs (esteem and self-actualisation). Flattening of hierarchy and larger span of control may help to give employees a greater sense of responsibility and involvement in the firm
- proposed changes to team-based and flexible production methods may offer greater opportunities for empowerment and therefore enable many to progress higher up the hierarchy, but this may also threaten security and safety needs for some
- team-based production should help enhance social needs with groups working closely together
- relatively authoritarian leadership may also prevent many progressing to higher levels, so ways to involve employees further may help progression up the hierarchy – quality circles, works councils or other strategies could support this work
- other relevant application of possible changes to Maslow's hierarchy.

Herzberg

The firm need to remove/minimise the impact of possible hygiene factors, while increasing/enhancing the motivators. These strategies could include

- enhancing pay or offering bonus/productivity related deals or other financial incentives (employee share ownership *etc.* if they floated) to avoid pay being a hygiene factor
- suggestions from employees on improving working conditions to ensure that is not a hygiene factor
- reducing the levels in the hierarchy to avoid over-supervision
- moving to a more laissez-faire style of leadership from the senior management
- team-based and flexible working should help achieve job enrichment
- potential for greater employee involvement in decision making through works councils, quality circles and other similar techniques to increase motivators
- skills development and training programmes to increase motivators
- techniques to ensure recognition for achievement and therefore enhance motivators
- *any other relevant point.*

[10 to 12 marks]

A number of strategies for improving motivation are identified and fully and clearly assessed. The work of both Maslow and Herzberg is extensively used and applied in a relevant manner to the strategies and ideas identified. The answer is closely related to the case material and arguments are mainly phrased in the context of the case study.

[7 to 9 marks]

Some strategies for improving motivation are identified and reasonably assessed. The work of both Maslow and Herzberg is closely referred to and generally applied in a relevant manner to the strategies and ideas identified. The answer is generally related to the case material though some points may tend to be a little more general at the lower end of the band.

[3 to 6 marks]

Some methods for improving motivation are identified and the work of Maslow and/or Herzberg is referred to, though may not be closely related to the methods identified. There is some reference to the case study, though this may be limited at the bottom end of the band.

[1 to 2 marks]

An essentially descriptive answer that may refer to the work of either Maslow or Herzberg and may identify or list some methods for improving motivation, but which is essentially descriptive and tends not to relate to the case study.

3. (a) What strategies are available to *Riveau Yachts* to develop their brand name in order to reduce the price sensitivity of their products?

[6 marks]

Strategies to develop the *Riveau Yachts* brand could include

- a more market-oriented approach to reflect customer needs more closely and therefore ensure better identification with the brand
- sponsorship of key yachting or other events which are closely followed by key target market segments
- greater point of sale promotion with their dealers – production of materials to help raise brand profile at dealers
- use of customer testimonials and other customer-oriented approaches to associate brand name with quality and reliability
- attendance by Jacques and Yves at high-profile yachting events to ensure association of brand with successful sailors
- support of organizations that may help identify the brand with less commercial objectives – lifeboats *etc.*
- carefully targeted advertising that focuses on brand and quality issues to ensure brand association by consumers
- raising the profile of the brand name on the products to ensure identification by potential consumers
- *any other relevant point.*

[5 to 6 marks]

Identification and explanation of a number of strategies that *Riveau Yachts* could use to raise brand profile with a full explanation of how each strategy achieves its objective. Answer written fully in the context of the case study material.

[3 to 4 marks]

Identification with some explanation of possible strategies, though these may not be fully associated with the case study. There is some explanation of how the strategy helps raise brand profile.

[1 to 2 marks]

Limited identification of possible strategies, perhaps with some explanation, but may simply be listed or essentially descriptive. Little or no reference to the case study.

- (b) **André, the marketing director, is “arguing the case for developing new differentiated models of their boats specifically for the charter holiday market” (lines 71 to 72). In a report to the board of directors analyse the advantages *and* disadvantages of this strategy. [14 marks]**

[2 marks] for report format which includes at least five from: to, from, date, title, introduction, analysis, conclusion and recommendations.

[1 mark] for a report format with less than five of above elements.

Possible advantages and disadvantages might include

Advantages

- new potential market with extra revenue
- limited need for new product design or production reorganization to meet requirements
- potential for further economies of scale in production
- lower marketing costs with a number of boats being sold to a single firm rather than usual situation of individual sales – therefore reduced indirect costs
- potential to reach new customers – charter customers may purchase boats in future – therefore indirect marketing benefits
- enhancement of brand profile – charter customers are made more aware of the *Riveau Yachts* brand name
- extra revenue growth helps spread fixed costs of production – extra contribution from growth should be mainly profit
- increasing income levels in Europe and globally likely to boost demand for charter/holiday market – particularly given income elastic nature of demand for good
- *any other relevant point.*

Disadvantages

- risk of over-expansion
- possible need for further long-term finance or short-term working capital
- adverse exchange rate movements may reduce profitability of sales
- charter market is a very competitive market and so will have much lower margins on sales
- possible slow market growth in short-term given uncertainty about recovery in Asia and other key areas of the charter market
- costs associated with product development to redevelop their product range for the charter market – these are fixed costs
- *any other relevant point.*

[10 to 12 marks]

A full, detailed and balanced analysis of the advantages and disadvantages of expansion into the charter market. Detailed and relevant reference to the case study material and thorough application of subject theories and concepts.

[7 to 9 marks]

A reasonable and generally balanced analysis of the advantages and disadvantages of expansion into the charter market. Reasonable reference to the case study and some application of relevant subject theories and concepts.

[4 to 6 marks]

Some analysis of advantages and/or disadvantages of expansion, but this may tend to be descriptive at the bottom end of the range. Some reference to the case study, though this may not always be relevant.

[1 to 3 marks]

Limited analysis of advantages and/or disadvantages or no analysis and just a limited description or list. Little reference to the case study, but some descriptive use of relevant areas.

4. Evaluate whether *Riveau Yachts* should become a public limited company (line 149).

[8 marks]

Riveau Yachts is currently a private limited company with the bulk of the share ownership in the hands of the founding partners and their families. They have been considering conversion to a public limited company to help with raising further finance to meet development costs for new products. However, if they float they may face various constraints

- loss of control by founding partners will mean increased accountability to external shareholders – this may alter the decision-making framework
- decisions will need to be made with shareholders and their expectations in mind – may lead to decisions being made on a shorter-term basis, making investment and other longer-term decisions more difficult
- flotation will mean more extensive financial and other reporting – this will allow greater access to accounts and other information – may be an advantage to competitors
- company value will be subject to external influence of equity markets, themselves subject to general external influences that may not be relevant to yachting market
- *Riveau Yachts* may be more exposed to possible takeover by a competitor or other firm – this may affect their decision making
- flotation means more stakeholders having a more direct interest in the business (could be a gain) this will need to be considered as part of the decision-making process
- though they will have access to further sources of funding through share issues, they may also be more exposed financially.
- *any other relevant point*

[7 to 8 marks]

A clear and thorough evaluation of the decision about becoming a plc with detailed reference to the case study material. Significant reference to relevant subject theories and concepts. For [8 marks] a judgement should be given on the decision.

[5 to 6 marks]

Reasonable evaluation of the decision about becoming a plc with some relevant reference to the case study. Some use of relevant subject theories and concepts.

[3 to 4 marks]

Some consideration of the decision about becoming a plc but perhaps with limited evaluation. Some reference to the case study but this may be limited and descriptive.

[1 to 2 marks]

Limited and probably essentially descriptive answer with some mention of the impact of flotation on the company.

The proposed flotation may also offer a number of benefits and these may include:

- access to a wider range of funding sources which may help with product development and strategic growth plans. These sources may be appropriate given the existing high level of gearing
- potential to bring in a wider range of more specialist skills
- a broader range of stakeholders
- *any other relevant point.*

SECTION B

5. (a) Using this information calculate the payback period, ARR (accounting rate of return) and NPV (net present value) (assuming a discount rate of 10 %) for each of the machines. *[6 marks]*

Payback on Machine A – 1 year 209 days (7 months)
 Payback on Machine B – 2 years 166 days (5½ months)

$$\text{Average rate of return} = \frac{\text{Net profit per annum}}{\text{Capital outlay}}$$

ARR Machine A = \$155 000 – \$65 000 = \$90 000 over 5 years
 = \$18 000 per annum
 = 18 000/65 000 = **27.69 %**

ARR Machine B = \$205 000 – \$85 000 = \$120 000 over 5 years
 = \$24 000 per annum
 = 24 000/85 000 = **28.23 %**

Year	Machine A	Present value \$	Machine B	Present value \$
1	45 000	40 905	25 000	22 725
2	35 000	28 910	35 000	28 910
3	25 000	18 775	55 000	41 305
4	25 000	17 075	55 000	37 565
5	25 000	15 525	35 000	21 735
Total	147 500	121 190	205 000	152 240
Less investment cost		(65 000)		(85 000)
Net present value		56 190		67 240

Present value calculated by multiplying net cash flow by discount factor.

Up to *[2 marks]* for correct answers on payback.

Up to *[2 marks]* for correct answers on ARR.

Up to *[2 marks]* for correct answers on net present value.

Up to *[1 mark]* awarded for each for clear understanding of method, but with minor errors in calculation.

- (b) **Using the values you have calculated in part (a) assess the financial advantages and disadvantages to Riveau Yachts of investing in each of the machines.**

[6 marks]

Machine A

- Lowest ARR, just lower than Machine B, rapid payback should lower financing costs, reasonable net present value. Significantly cheaper than Machine B and therefore easier to raise finance – lower capital/interest costs. Net cash flow a little variable and low in year four perhaps indicating high maintenance costs after four years.

Machine B

- High ARR, just higher than Machine A and highest net present value, therefore the best return in the medium term. However, payback period a year longer than Machine A. Also the most expensive machine and therefore the highest capital costs. This combined with the three year payback period may mean relatively high borrowing costs, and perhaps higher gearing.

[5 to 6 marks]

A full and balanced assessment of a number of advantages and disadvantages of both machines, with reference to all three investment appraisal tools (payback, ARR and NPV) and consistent with the calculations in part (a).

[3 to 4 marks]

An assessment of some advantages and disadvantages of both machines with reference to at least two investment appraisal tools (payback, APP and NPV) and with some reference to the figures calculated in part (a), though assessment may not always be consistent with results.

[1 to 2 marks]

A very limited and essentially descriptive answer, with little or no reference to the calculations in part (a) or a simple list of unrelated advantages and/or disadvantages.

- (c) **Discuss other factors that *Riveau Yachts* would need to take into account before making their decision about this investment.** **[8 marks]**

This answer should focus on aspects of the investment decision other than the investment returns dealt with in parts (a) and (b). These may include:

- the funding requirements – does the firm have the capital required for the investment, will they have to borrow, if so what impact will this have on their gearing ratio
- the functionality of the equipment – how well does it meet the firm’s requirements? How productive is it? What extra features does it have that may be of value to the firm?
- the maintenance requirements and costs of each of the machines
- the level of technology used by each machine – how future-proof is each machine
- how much potential for capacity growth does each machine offer?
- what will the scrap value of each machine be?
- what machines are competitors using?
- external environment - possible external shocks
- *any other relevant point*

[7 to 8 marks]

A full and detailed answer with a number of suggestions of other factors fully discussed. Reference where relevant to the case study material.

[4 to 6 marks]

A reasonable answer with some suggestions of other factors suitably discussed. Some reference to the case study material. The discussion may tend to be relatively descriptive at the lower end of the band.

[1 to 3 marks]

An essentially descriptive answer with some suggestions of factors affecting investment, but these may be either listed or perhaps unrelated to the case study.

6. (a) Construct the forecast balance sheet and profit and loss account for 2004.

[8 marks]

Balance sheet

	2004 \$	2004 \$
Fixed assets		48 750 625
Current assets		
Stock	28 550 000	
Debtors	18 250 675	
Cash	<u>789 950</u>	
Total		47 590 625
Current liabilities		<u>20 500 250</u>
Net assets		75 841 000

Shareholder funds

Share capital	4 750 000
Retained profit	27 441 000
Loan capital	<u>43 650 000</u>
Capital employed	75 841 000

Profit and loss account

	2004 (\$)
Total sales revenue	160 000 000
Cost of goods sold	141 250 000
Gross profit	18 750 000
Marketing, sales and admin expenses	11 500 000
Net profit	7 250 000
Interest payable	2 856 000
Profit before tax	4 394 000
Corporate tax	1 250 000
Profit after tax	3 144 000
Dividends per share	0.50
Dividends paid	1 250 500
Retained profit	1 894 000

[7 to 8 marks]

A correct balance sheet and profit and loss account. A maximum of two minor errors for [7 marks].

[5 to 6 marks]

Essentially accurate balance sheet and profit and loss account with a maximum of four relatively minor errors.

[3 to 4 marks]

Generally correct construction of the balance sheet and/or profit and loss account, but with a significant number of errors in the figures.

[1 to 2 marks]

A reasonable number of correct elements in the balance sheet and/or profit and loss account, but with a large number of errors in the calculation of the figures.

- (b) **The firm is considering conversion to a public limited company in 2005. With reference to the figures you have calculated in part (a) and using four ratios, evaluate these forecast accounts from the point of view of a potential investor.**

[12 marks]

Possible ratios that could be included in an answer include

Ratio	2003 Value	2004 Value
Gross margin (%)	15.46	11.72
Net margin	8.6	4.53
Current ratio	2.81	2.32
Acid test ratio	1.28	0.93
ROCE	18.23	9.56

Comments on the change in the financial situation could include

- significant slowdown in sales growth – slowdown in global income, growth or lack of recovery in Asia and other markets
- worrying fall in gross margin – caused mainly by growth in cost of goods sold being significantly faster than revenue growth. Perhaps increases in raw material prices, or wage growth causing increase in direct costs
- figures perhaps indicative of poor cost control or mainly external factors
- fall in net margin – caused to a certain extent by change in cost of goods sold, but also some growth in marketing, admin and sales expenses – indirect costs
- current ratio has fallen slightly, but still at a reasonably safe level
- acid test ratio fallen significantly – now below one. Caused to a great extent by increase in stocks being relatively greater than increase in sales. Improved stock control required
- significant fall in cash and rise in debtors – tighter credit control required
- return on capital employed fallen considerably – causes related to changes in profit margins
- *any other relevant point.*

[10 to 12 marks]

Full, thorough and detailed evaluation of the accounts from the perspective of a potential investor. Extensive use of subject concepts and theories including full use of four ratios. Reference to the case study material where relevant. Evaluation refers to and is consistent with the figures calculated in part (a).

[7 to 9 marks]

Reasonable evaluation of the accounts from the perspective of a potential investor with appropriate use of subject concepts and theories including at least three ratios where relevant. Evaluation is generally appropriate to the case study and is consistent with figures calculated in part (a).

[4 to 6 marks]

Some evaluation of the accounts though at the bottom end of the band this may tend to be a little descriptive. Some use of subject theories and concepts, perhaps with reference to at least two ratios at the upper end of the band. Some mention of the case study and evaluation is generally consistent with the figures given and the calculations in part (a).

[1 to 3 marks]

Limited and perhaps essentially descriptive answer with some reference to the accounts and figures given, but little use of subject theories and concepts. Evaluation may not always be related or relevant to the case study or consistent with the figures given.
