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# Answers

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Section A

1 D

2 C

3 B

4 A

5 A

6 B

7 D

8 C

9 D

10 A

11 A

12 A

13 D

14 C

15 A

16 B

17 B

18 B

19 C

20 A

14 Expected values:

|   | £000  |         |
|---|-------|---------|
| W | 18.00 |         |
| X | 17.75 |         |
| Y | 20.40 | Highest |
| Z | 18.45 |         |

15 The worst result occurs if economic growth is low. The least bad result is a loss of £2,000 from project W.

16 Although ABM may well lead to cost reduction, this is not the sole or primary objective. Equally important objectives include quality improvement and reduction in lead times.

ABC is a means of allocating costs to products on the basis of the cause of costs (cost drivers). While the information provided by identifying cost drivers may well lead to cost reduction this is not the specific objective.

17 The fact that production will only take place when there is a demand will lead to a lower volume of production, reducing average capacity utilisation levels.

The flexibility which is a key feature of JIT will actually make it easier to respond to changes in customer demand.

The need to ensure each stage of the production process can rely on the previous stage means that attention must be directed to quality, leading to quality improvements.

18 BPR will lead to staff working in teams and becoming multi-skilled.

The redefined focus will lead to an improvement in customer satisfaction levels.

19 Residual income is calculated by deducting a notional interest charge from divisional profit (which is calculated after depreciation).

The notional interest charge is based on the accounting, or book, value of net assets.

The use of accounting values means that accounting policies will influence residual income.

The imputed interest charge can be separately calculated for each project to reflect the risk associated with each project.

20 EVA® is calculated by deducting a charge calculated as:  
economic value of net assets x cost of capital  
from net operating profit after tax.

Thus the adjustment is:

£27.9 million x 8.7% or £2,427,300

Thus EVA = £2,472,000 – £2,427,300 = £44,700

## Section B

- 1 (a) (i) Current taxation refers to the corporation tax charge on the profits earned in the current year.

The estimated liability for current taxation will be included in the financial statements by making a charge in the profit and loss account and creating a liability on the balance sheet.

There are some important points to note. The first is that it is necessary to estimate the amount for current taxation as the liability will only be settled after the company's tax return is submitted to the tax authorities. This means that the amount of tax which is ultimately paid is almost certain to be different to the estimate.

Because of the difference between the estimated liability and the amount which is ultimately paid, the total charge to profit and loss will be the total of the estimated liability and the under or over estimate from the previous year.

Mark allocation: 1 mark per point to a MAXIMUM of 3

- (ii) Although accounting profit is the starting point for the calculation of a company's tax liability, there are a number of adjustments which must be made to accounting profit in order to obtain the figure for taxable profit.

These adjustments fall into two categories:

Permanent differences

Timing differences

Permanent differences pose no problem as these are simply items which are treated differently when calculating taxable profit. The most common example is entertaining expenses which, although a legitimate expense in the accounts, may not be written off against tax.

The problem arises with timing differences. A timing difference is an item which is an allowable expense when calculating taxable profit in the current period, but will be charged against accounting profit in a future period. The effect of such items is to reduce the amount of current tax. However, at some date in the future, the effect will reverse, and additional tax will fall due in the period in which the effect is reversed. Therefore the effect of timing differences is to put off, or defer, the payment of tax. Permanent differences lead to tax being eliminated.

This means that although the company need not pay current tax, it will be required to pay tax at a later date. Such tax clearly meets the definition of a liability – 'an obligation to transfer economic benefits as a result of past transactions or events'. Such an obligation must be reflected in the financial statements.

Mark allocation: 1 mark per point to a MAXIMUM of 6

- (b) (i) **Deferred Tax**

|                          |                |
|--------------------------|----------------|
| Net book value of assets | £17.50 million |
| Tax written down value   | £17.05 million |
| Timing difference        | £450,000       |

This will reverse at some date in the future, and so provision must be made at the current tax rate of 30%.

Therefore the deferred tax liability is  $£450,000 \times 30\% = £135,000$  2

The liability brought forward is £107,000. Thus an increase of  $(£135,000 - £107,000)$  £28,000 is required, and must be charged to profit and loss. 1

### **Current Tax**

The estimated liability of £62,000 will be reported on the balance sheet. 1

As a balance of £8,000 remains (the previous year's liability was overestimated), the charge to profit and loss will be £54,000. 1

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| <b>(ii) Fixed assets</b>                                       | <b>£000</b>                                     | <b>£000</b>   |   |
|--|---|---------------|---|
| Tangible assets  |   | 17,500        |   |
| Fixed asset investments  |   | 1,800         |   |
|  |   | <u>19,300</u> |   |
| <b>Current Assets</b>  |   |               |   |
| Stock  | 950   |               |   |
| Debtors  | 1,340   |               |   |
| Cash at bank and on hand                                       | 61  |               |   |
|  | <u>2,351</u>                                    |               |   |
| <b>Creditors: amounts falling due within one year (W1)</b>     | <u>(1,385)</u>                                  |               | 2 |
| <b>Net current assets</b>                                      |   | <u>966</u>    |   |
|  |   | 20,266        |   |
| <b>Creditors: amounts falling due after more than one year</b> |   | (5,560)       |   |
| <b>Provisions for liabilities and charges</b>                  |   | (135)         | 2 |
|  |   | <u>14,571</u> |   |
| <b>Capital and reserves</b>                                    |   |               |   |
| Called up share capital  |   | 3,000         |   |
| Share premium account  |   | 2,000         |   |
| Revaluation reserve  |   | 1,530         |   |
| Profit and loss account (W2)                                   |   | 8,041         | 2 |
|  |   | <u>14,571</u> |   |
| <b>Workings</b>  |   |               |   |
| <b>W1</b>  | Creditors per draft balance sheet               | £1,438        |   |
|  | Less Deferred Tax incorrectly allocated         | (£107)        |   |
|  | Add Additional liability – current tax          | £54           |   |
|  | Revised creditors                               | £1,385        |   |
| <b>W2</b>  | Profit and Loss Account per draft balance sheet | £8,123        |   |
|  | Less Additional liability – current tax         | (£54)         |   |
|  | – deferred tax                                  | (£28)         |   |
|  | Revised balance                                 | £8,041        |   |



- 3 (a)** The directors are responsible for preparing the financial statements of the company; selecting and applying appropriate accounting policies; complying with generally accepted accounting practice. Specifically, the Companies Act requires the directors to ensure that the financial statements provide a true and fair view of the company's results for the period and the financial position at the end of the period.

The auditor is responsible for expressing an opinion as to whether or not the financial statements give a true and fair view. This opinion should be based on evidence which, in the professional judgement of the auditor, is sufficient and appropriate to provide a reasonable degree of assurance.

Mark allocation: 1 mark per valid point, to a MAXIMUM of 6

- (b)** The need for the financial statements of most companies to be audited arises due to the nature of a limited company. This form of organisation allows the ownership of the organisation to be separated from the day to day management. While the owners (the shareholders) ultimately control the company, it is the directors who effectively control it.

This means that the owners must receive a regular report providing details of how the directors have discharged their duties. The preparation of financial statements for the owners is therefore related to the stewardship function of the directors.

As recent high profile scandals have shown, directors may not always report in a manner which can be described as open, transparent and reliable.

Therefore it is necessary for an independent, properly qualified person to review the financial statements and report on their findings.

The Companies Act requires this review – or audit – to be carried out and to report specifically on whether the financial statements give a true and fair view.

This means that the owners can have reasonable assurance that they can rely on the financial statements.

If the financial statements were not audited, there would be no assurance that they can be relied on.

Mark allocation: 1 mark per point, to a MAXIMUM of 4

- (c)** The requirement for financial statements to give a true and fair view is paramount. The term is not specifically defined, and is therefore dynamic, responding to changes in generally accepted accounting practice. For example as new Financial Reporting Standards (FRSs) are introduced, what constitutes a true and fair treatment is revised.

It follows therefore, that compliance with FRSs is a key requirement if the financial statements are to be considered true and fair.

It is important to note that 'true and fair' does not mean 'correct' or 'accurate'.

The auditor expresses an informed and expert opinion, but this is deemed to provide reasonable assurance that the financial statements can be relied on in broad terms.

When the auditor states that the financial statements give a true and fair view, this means that they are not materially misleading – or that they are free from material misstatement. In addition a true and fair view could be considered to mean that the financial statements are free from bias.

This means that they are useful to a wide range of users, and that they can be considered to conform with at least two of the desirable qualities of useful financial information – relevance and reliability.

Mark allocation: 1 mark per point to a MAXIMUM of 6

- (d)** Perhaps the most obvious type of entity which is not required to prepare audited financial statements is an unincorporated entity – a sole trader or a partnership. This is because such entities are not subject to the Companies Act, and the audit is a requirement of the Companies Act.

As the question states, it is no longer the case that all UK limited companies must prepare audited financial statements, as 'small' companies (i.e. those below a certain size threshold) are exempt from the requirement. There are perhaps two main reasons for this. The first is the fact that in many small companies, the owners are actively involved as managers, and this means that they will tend to place less reliance on annual external reporting. Secondly there is a view that it is unnecessary to burden small companies with the relatively major expense of an audit. The exemption from the audit requirement, combined with the benefits of limited liability are seen as an incentive to business development.

Mark allocation: 1 mark for each of the following:

|                        |  |
|------------------------|--|
| Audit not required for | unincorporated entities<br>small companies   |
| Reasons                | not subject to Companies Act<br>no separation of ownership and control<br>less reliance on financial statements<br>incentive to business |

to a MAXIMUM of 4



## Section C

4 From Project Team  
To Managing Director  
Reference New Product Costing  
Date 8 June 2005

As requested, we have considered a number of issues concerning the development of our new product.

This report covers the following issues:

- Target cost pricing as compared to cost plus pricing
- The recommended launch selling price
- The cost reduction which must be achieved
- Techniques to achieve the cost reduction
- Alternative pricing strategies

**(a) Target cost pricing**

Target cost pricing is a response to the competitive environment in which many companies now operate. The technique seeks to ensure that market demand, competitors' strategies and profitability are included in decisions.

Essentially the approach is to consider the features and benefits which customers require from the product and to assess the likely product life cycle. The price which customers are willing to pay is then identified, as well as the desired level of profit. By deducting the desired profit from the selling price we can calculate the target cost. It is interesting to note that our proposal is to set an initial launch price and assess profitability based on this price. A more widely used approach is to consider different prices at each stage of the product life cycle. This is considered below (under 'Alternative pricing strategies').

As can be seen, this contrasts with the traditional cost plus approach, in which the cost of the product is calculated, and a profit margin added to arrive at a selling price. This approach often leads to the need for additional expenditure on product promotion if market demand is lower than anticipated.

Target cost pricing will therefore ensure that market demand and customer preferences are incorporated into the product design stage.

**(b) Initial launch price and cost saving required**

Based on the market research report and the available data, the results of each of the initial launch prices can be summarised as follows (please see appendix 1 for detailed calculations):

| Initial Selling Price<br>£ | Profit/(Loss)<br>£ |
|----------------------------|--------------------|
| 200                        | (1.54) million     |
| 225                        | 3.18 million       |
| 230                        | 1.54 million       |

On the basis of the above results, we should launch the product at an initial price of £225.

If this unit price is selected, the target profit is £7.83 million (£52.2 million x 15%). This means that the total profit must be increased by £4.65 million or £20.04 per unit.

**(c) Techniques to achieve reduction in costs**

In order to achieve the required cost reduction, we could adopt one or more of the following techniques:

- Reconsider the design to eliminate non value added elements
- Reduce the number of components
- Use less expensive materials
- Standardise the components used
- Employ a lower grade of staff on production
- Invest in new technology
- Outsource elements of the production or support activities
- Reduce manning levels or redesigning the work flow (e.g. by multi manning machines)

**(d) As noted above, target cost pricing is normally associated with strategies which give rise to different prices at each stage of the product life cycle. There are two main methods of applying such a strategy: Market Penetration Pricing and Market Skimming Pricing.**

Market penetration

The initial price is set at a low level to encourage sales in the early stage of the product life cycle.

This allows a strong market share to be built up, and helps to achieve economies of scale, which lead to improved profitability.

The strategy also tends to discourage the entry of new competitors to the market.

Market skimming

This approach entails charging high prices on entry to the market when a product is first launched. To encourage sales, there will be significant spending on sales promotion.

This provides high unit profits in the early stage of the product life cycle.

As a result of the high initial unit profits, it is likely that competitors will be encouraged to enter the market.

As the product moves through the stages of its life cycle, prices are reduced.

It would seem that on balance, a policy of market skimming may be appropriate in this case.

Appendix 1

| Price  | Sales Volume | Revenue   | Variable Costs | Contribution | Fixed Costs | Devel. Costs | Profit/(Loss) |
|--------|--------------|-----------|----------------|--------------|-------------|--------------|---------------|
| £ p.u. | Units        | £ million | £ million      | £ million    | £ million   | £ million    | £ million     |
| 200    | 259          | 51.8      | 41.44          | 10.36        | 5.5         | 6.4          | (1.54)        |
| 225    | 232          | 52.2      | 37.12          | 15.08        | 5.5         | 6.4          | 3.18          |
| 230    | 192          | 44.16     | 30.72          | 13.44        | 5.5         | 6.4          | 1.54          |

Mark allocation

- (a) 1 mark for reference to each of the following:  
 market demand  
 product life cycle  
 price customers will pay  
 profit margin  
 calculation of target cost  
 included in product design  
 cost plus approach  

to a MAXIMUM of 5
- (b) 1 mark for each of the following:  
 Calculation of total contribution  
 Calculation of Total Profit/(Loss)  
 Selecting price with highest profit  
 Calculation of target profit  
 Calculation of decrease in unit costs required  

5
- (c) 1 mark for each recommendation  

5
- (d) 1 mark for each comment to a MAXIMUM of  

5

5 (a)

|                              | X<br>£ | S<br>£ | M<br>£ |         |
|------------------------------|--------|--------|--------|---------|
| Selling price                | 360.00 | 450.00 | 550.00 |         |
| Variable costs:              |        |        |        |         |
| Materials                    | 111.40 | 114.50 | 116.30 |         |
| Labour                       |        |        |        |         |
| machining                    | 82.50  | 123.75 | 151.25 |         |
| assembly                     | 13.10  | 14.70  | 15.40  |         |
| Overheads                    | 33.60  | 50.40  | 61.60  |         |
| Machine costs (W1)           | 22.86  | 34.29  | 45.72  |         |
| Total variable cost          | 263.46 | 337.64 | 390.27 |         |
| Contribution per unit        | 96.54  | 112.36 | 159.73 |         |
| Labour hours per unit (W2)   | 3      | 4.5    | 5.5    |         |
| Contribution per labour hour | 32.18  | 24.97  | 29.04  |         |
| Rank                         | 1      | 3      | 2      |         |
| Demand (units)               | 450    | 340    | 280    |         |
| Hours required               | 1,350  | 1,530  | 1,540  | = 4,420 |

Only 2,989 hours available  
 Thus 1,431 hours short

Production of third ranked product in 1,431 = 318 units of SuperXon

Thus production schedule:

|          |                            |   |                   |
|----------|----------------------------|---|-------------------|
| Xon      | 450 units                  | = | 1,350 hours       |
| MegaXon  | 280 units                  | = | 1,540 hours       |
| SuperXon | 340 – 318 units = 22 units | = | 99 hours          |
|          |                            |   | Total 2,989 hours |

**Working 1**

Machine Cost £457,200  
 Useful life 10,000 hours thus cost per hour = £45.72  
 Machine cost at £45.72 per hour

| Xon    | SuperXon | MegaXon |
|--------|----------|---------|
| £22.86 | £34.29   | £45.72  |

**Working 2**

|                      | Xon     | SuperXon  | MegaXon   |
|----------------------|---------|-----------|-----------|
| Labour cost per unit | £82.50  | £123.75   | £151.25   |
| at £27.50 per hour = | 3 hours | 4.5 hours | 5.5 hours |

Mark allocation:

|             |  |       |       |
|-------------|--|-------|-------|
| Approach    | Machine cost included in calculation                               | 1     |       |
|             | Training cost not included (sunk cost)                             | 1     |       |
|             | Products ranked on basis of contribution per machining labour hour | 2     |       |
|             | Production schedule on basis of ranking                            | 1     | 5     |
|             |  | <hr/> |       |
| Calculation | Machine cost per unit  | 1½    |       |
|             | Machining labour hours per unit                                    | 1½    |       |
|             | Contribution per unit  | 3     |       |
|             | Production schedule  | 3     | 9     |
|             |  | <hr/> | <hr/> |
|             |  |       | 14    |

- (b) Before a final decision is taken, the company should seek clarification of a number of issues, including:

**Continuity of delivery**

Can we be sure that the supplier will continue to supply us in the long term? If we decide to purchase the component, our own production expertise will decline. If supply was halted for any reason, it would be difficult to recommence production quickly.

**Future Prices**

Is there any guarantee that the current price will be maintained in the future, or is there a risk that the supplier will increase the price once our own production facility has been shut down?

**Reliability of delivery**

We would need to consider whether the supplier can be relied on to deliver the quantities we require within our required timescales. In particular, can deliveries be obtained at short notice?

If not we will be forced to give up opportunities in the future through not being able to meet customer demand.

**Quality**

While we are producing the component ourselves, we have both control over, and some assurance of, quality. Of course it is possible that a specialist manufacturer may be able to offer enhanced quality.

**Potential to expand market**

The availability of a new source of supply for the component may provide an opportunity to expand production capacity and an incentive for a policy of market development. There is a possibility that the constraint imposed by our existing machinery has meant that we have not sought out such opportunities.

**Staff morale**

The effect of any redundancies on the morale of the remaining staff would need to be carefully considered. Staff may interpret the decline in production as evidence of a lack of commitment by the management.

**Strategy (to continue production)**

It is possible that it is company policy that as far as possible, we should manufacture all components in-house. This has the effect of portraying the company as self sufficient.

**Retention of commercial information**

We would need to be sure that by allowing another company to have access to information such as our production process and level of activity, that we are not divulging commercial information which for strategic or competitive reasons, should be retained internally.

1 mark per valid point to a maximum of

6

- 6 (a) The concept of supply chain management is fundamentally different to the 'traditional' approach to supply management.

Under the traditional approach, the total profit to be obtained from the sale of a product is finite, and must be shared between all the firms in the chain.

This means that each firm is effectively competing with its suppliers and customers, and each firm's objective in negotiations is to maximise its own share of the profit.

Such an approach is not conducive to building long term relationships and may even mitigate against customer satisfaction. Supply chain management is, by contrast, collaborative. Each firm in the chain is seen as adding value for the benefit of the final customer. This enhanced focus on customer satisfaction will lead to additional profit being available. From this it can be seen that collaboration for the benefit of the customer also provides benefits to all parties in the supply chain.

**(b)** The following elements of the supply chain must be managed in order to ensure success:

production process

as far as possible the process should be able to respond quickly to customer demand. This should be done without tying up excess funds in stock. The collaborative nature of supply chain management can assist in this aim.

in house or outsource

a fundamental decision which must be made is which components of each product should be manufactured in house and which should be outsourced. This is considered in (d) below.

stock levels

Subject to avoiding stock outs, stock should be held at as low a level as possible.

transport

the practicalities of delivery of both supplies and finished goods must be carefully considered to ensure a reliable flow and to control costs.

information

as we will be collaborating rather than competing, there will be opportunities to share information to ensure mutual benefit.

**(c)** The potential for improved performance through supply chain management arises due to the collaborative nature of the concept, and the closer working relationships which it fosters.

Because all parties are focused on the requirements of the final customer, all activities will be tested by asking 'does this add value for the final customer?'

Due to the increased cooperation, quality will be inbuilt throughout the process, leading to the opportunity for cost savings. In a similar manner, other non-value added activities can be identified and eliminated. It is worth noting that identifying such activities throughout the entire process becomes the responsibility of all parties. Ultimately, the increased levels of customer satisfaction will lead to improved performance, as all activities are driven by, and meet, the needs of the final customer.

**(d)** Outsourcing can assist by:

allowing us to focus on core competences

there are many activities which must be carried out in the production process, but which are not key aspects of our activities. A fairly obvious example would be office cleaning.

availability of expertise

by outsourcing such activities to suppliers for whom the activity is a core competence, we can avail of their expertise.

reduces risk of under-utilisation of assets

if there is certain equipment which is needed to carry out processes which we will not be undertaking on a regular basis, it may either be difficult to justify the investment, or the equipment will be under-utilised.

knowledge transfer

by working with partners with different core competences to ourselves, we can learn from them. This can often lead to new insights about our own processes.

The potential drawbacks of outsourcing are:

measuring the quality of the goods supplied

there may be difficulty in agreeing the required quality standard with the supplier, leading to disputes.

obtaining a rebate if quality standards are not met

unless the contract has clear mechanisms to provide for a rebate or price reduction if agreed quality standards are not met, there will be costly disputes.

identifying and agreeing 'excess' costs

the product or service to be provided must be clearly specified so that the 'normal' costs are identified. In addition there must be a clear basis on which to calculate and charge excess costs.

terms for withdrawal from the agreement

the company must ensure that it is possible to withdraw from the contract without incurring penalties in the event that requirements change.

the supplier may cease to trade

the continuity of provision of the product or service must be considered as disruption due to the supplier ceasing to trade could be detrimental.

Mark allocation:

- (a) 1 mark for any of the following:  
'Traditional' approach is competitive  
Finite profit to be shared  
Supply chain management is collaborative  
And focuses on final customer satisfaction  
Collaboration leads to increased total profit  
to a MAXIMUM of 4
- (b) 1 mark for any of the following:  
Collaboration improves performance  
By developing closer relationships  
Focus on final customer eliminates non value added  
All parties consider whole chain to identify non value added  
Improved customer satisfaction improves performance  
to a MAXIMUM of 4
- (c) 1 mark for identifying and briefly explaining any of the following:  
production process  
in house or outsource  
stock levels  
transport  
information  
to a MAXIMUM of 4
- (d) 1 mark for any of the following:  
BENEFITS  
focus on core competences  
availability of expertise  
reduces risk of under-utilisation of assets  
knowledge transfer  
DRAWBACKS  
measuring the quality of the goods supplied  
obtaining a rebate if quality standards are not met  
identifying and agreeing 'excess' costs  
terms for withdrawal from the agreement  
the supplier may cease to trade  
to a MAXIMUM of 8