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# Answers

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1 Quantitative Analysis

(a) Basic data	2000 (£M)	1999 (£M)	1999–2000 % change
Turnover			
Total	638.1	623.9	+2.3
Continuing	429.6	391.9	+9.6
Operating Profit			
Total	22.7	60.4	-62.4
Excluding exceptionals	60.1	64.5	-6.8
Continuing	7.9	45.6	-91.7
Continuing excluding Exceptionals	44.9	49.7	-9.7
Profit before Tax			
Total	121.5	57.0	+113.2
Excluding exceptionals	55.6	61.1	-9.0
E.P.S.			
Total	19.46p	10.71p	+81.7
Excluding exceptionals	11.45p	12.07p	-5.1

(b) Ratios	2000(%)	1999%
Operating margins		
After exceptionals		
Total	3.56	9.68
Continuing	1.84	11.64
Discontinued	7.10	6.38
Before exceptionals		
Total	9.42	10.34
Continuing	10.45	12.68
Discontinued	7.29	6.38
Net margins (Before Tax)		
After exceptionals	19.04	9.14
Before exceptionals	8.71	7.79
Return on Capital Employed*		
After exceptionals	29.9	31.4
Before exceptionals	61.8	29.5

N.B. The complexity of the data would give candidates opportunity for even further analysis, e.g. segmented data.

\*(PBIT/Shareholders Funds + loans)

(c) Analysis and discussion should deal with the following issues in particular, but other relevant points will be rewarded:

- Year on Year change in the above data and the volatility of the results in respect of which figures are used.
- Impact of exceptional items, each should be discussed, the amortization of goodwill and taxation.
- Implications of the significant levels of discontinued activities for analysis of turnover, profits and returns.
- Implications of the profits and EPS figures for market interpretation of return on capital employed, P/E numbers, dividend cover etc.
- Limitations of figures e.g. relative levels of capital involved in acquisitions and disposals, period of contribution of acquisitions; relative segmental changes in continuing operations.

## 2 Analysis of five year summary

Asset Structure	96	97	98	99	00
	%	%	%	%	%
Goodwill			47	49	62
Tangible fixed assets	103	127	65	69	32
Other net assets/liabilities	20	29	15	12	(18)
Net cash/debt	(23)	(56)	(27)	(30)	24
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<b>Year on Year Change</b>					
Goodwill	–	–	*	+18%	+66%
Tangible fixed assets	–	–30%	–1%	+22%	–39%
Other net assets/liabilities	–	–16%	–2%	–10%	*
Net Debt	–	+40%	–5%	+27%	*
Net assets employed	–	–43%	+98%	+14%	+32%
* % age change meaningless					
<b>Net assets per share</b>	41·0p	23·3p	45·8p	520p	69·1p

### Analysis and discussion

Answers should examine each item individually and in context of the others. Strategic and operational implications of the data and conclusions which may be derived from it will be particularly rewarded.

- Goodwill – 1998 to 2000 show increasing investment in subsidiaries. The very significant acquisition and disposal in 2000 should be fully explained.
- Tangible fixed assets – highly volatile data. What are the causes (revaluations, discontinuations)? Depreciation and impairment policy? Again the significant change in 2000 should be fully explained.
- Other net assets – trend is for decreasing investment and in 2000 the increase in short term borrowing is highly significant.
- Net debt – Gearing levels have been volatile over the period 1996 – 1999 but in 2000 a policy of paying off all long term debt results in zero gearing. What are the implications of this?
- Total assets – overall the net assets employed and per share have increased year on year between 1997 and 2000. However, as has been shown above the pattern on net assets has been inconsistent.

Marks will be given for linking the above to further information available in the extract supplied as a supplement.

## 3 Specific issue is the qualified opinion arising from limitations in audit evidence.

### Answers should explain:

- The nature of the accounting item and its significance in interpretation of the financial statements,
- The limitations in evidence as described by the auditors,
- The potential impact on current, previous and subsequent years.
- Answers should explain the potential signalling effect on market investors of qualified opinions and place this qualification into the context of possible qualifications.
- Candidates may note the change in auditor during the year from PWC to D & T and comment thereon.

## Section 2 – Performance Management

4 The following is an answer using a spreadsheet.

Activity	Activity cost £	Cost driver £	Cost driver rate £
Set-ups	325,360	16,600	19.60
Quality assurance	232,500	9,300	25.00
Material movements	215,840	7,600	28.40
Special part orders	109,375	625	175.00
Detail machine	777,600	8,640	90.00
High volume machine	230,400	5,760	40.00
Other overheads	439,530	112,700	3.90
Total overheads	2,330,605	112,700	20.68

(a) (i)	X43 £	X44 £
Material	252.00	264.00
Direct labour	45.00	45.00
Overheads – 3 hrs at £20.68	62.04	62.04
Total cost per unit	<u>359.04</u>	<u>371.04</u>

(ii)	X43 £	X44 £
Material	252.00	264.00
Direct labour	45.00	45.00
Set-ups	0.20	2.94
Quality assurance	0.13	1.25
Material movements	0.85	8.52
Special part orders	1.75	35.00
High volume machine	40.00	
Detail machine		180.00
Other overheads	11.70	11.70
Total cost per unit	<u>351.62</u>	<u>548.41</u>

- (b) – Standard points apply here: labour-based allocation hides the costs of complexity and the costs of small batches.
- X43 which is simpler and made in larger batches, has a cost under ABC that is 2% lower than the labour-based cost. However X44, which is more complex and is made in smaller batches, has an activity-based cost of 48% above the labour-based allocation.
  - If the labour-based allocation is used the Fabrication Department may well end up winning orders that cause losses as the true cost of complex products is not apparent.
  - Problems may arise if the ABC system is also used for internal sales as this may change the pricing structure that has been used for some time. It could lead to other parts of YSE seeking alternative sources; it may also make the Fabrication more attractive for other products.
  - The importance of machine time should be commented on as this accounts for a significant amount of the ABC cost. This may lead to careful use of this resource, and examination of ways of reducing its cost.
  - In general, implementing a new pricing policy at the same time as a new structure with increased autonomy will lead to greatly increased uncertainty.
- (c) Further activity-based techniques that may be relevant include the following.
- A more detailed activity-based costing system that isolates more of the causes of cost variability.
  - Activity-based budgeting can be used to match activity-based costing and thus budgeting and decision making will be on the same basis.
  - Activity-based management techniques can be used to improve performance in various ways, including:
    - Activity-mapping to identify obvious causes of waste or high cost activities.
    - Analysis of value-added and non value-added activities – the aim being to reduce non value-added activities in such a way that necessary activities are not hurt and may even be made more effective.
  - Problems may arise from: data collection, resistance from staff, lack of a collaborative culture, the inherent difficulty in some techniques, cost exceeding benefits, etc.

- (d)** The following points and many others could be included in an answer.
- (i)**
- Stock increases working capital requirements and thus interest costs.
  - Stock consumes space and requires staff to move and control it.
  - Stock can be damaged or become obsolete.
  - WIP clutters up the production area.
  - JIT purchasing requires items to be delivered to factory at the point they are needed, thus stock holding is drastically reduced.
  - In extreme cases items are delivered directly on to production line.
  - JIT production requires items to be made when they are needed and not for holding in stock.
  - Thus small batches are usually made.
  - To make small batch production economic production processes need to be changed, often using FMS and flow-line production.
  - JIT can give rise to much reduced stock holding costs, release of space and staff previously used to control stock and WIP, much more flexible and responsive production, etc.
  - Problems may arise if the system fails at any point and no back-up stocks are held.
  - Quality must be virtually 100%
  - Suppliers must be willing to be more responsive.
  - Very high levels of trust and reliability are needed to implement JIT successfully.
  - If there have been functional disputes within the company these must be resolved and a co-operative culture must be established.
  - Blame culture must be replaced by problem-solving culture and possibly team-based working.
- (ii)**
- ERPS can allow open access to vast amount of data, but some data may be restricted to certain users only.
  - Systems for one functional area will have easy access to data from elsewhere when needed, and no re-inputting of data should be necessary.
  - Management information for all areas should be available rapidly and may be on-line in most cases.
  - There is little flexibility and all staff must follow systems carefully.
  - Small lapses in system procedures can cause major problems elsewhere in the company.
  - Culture must be co-operative and disciplined.
  - Company will need rigorous quality controls on the input of data.
  - Consultants almost always needed as technical issues are complex.
  - Consultants must work closely with company staff and train users to ensure best results.
  - May need different sets of consultants – one to deal with technical implementation and others to help with cultural change.