Exam Paper 4 Answers

**Question 1**

***Statement of Financial Position***

The statement shows the worth of the organisation

It lists the assets of the business – the items that the company owns

It shows the liabilities of the business – money that is owed by the company to third parties

Identifies the equity – the amount belonging to the owners/shareholders

Users can look at the SofP and quickly assess wealth holdings of land, plant and machinery.

This may also give an indication of future income.

Users can assess the stability of the business by comparing current assets with current liabilities.

Also long term stability by having a clear idea of longer term borrowing.

But can only record items which have an historical cost and are recorded when transaction occurred and not valued at date of SofP

Does not show current value

***Income Statement***

Gives an indication of the profitability of the company

Gross profit will look at the core business

Operating profit will include administration and distribution expenses perhaps indicating good cost control.

An idea of how much profit has been paid out in tax and interest, can this be sustained.

Can compare profit to a return from any other investment.

However has been subject to accruals and other accounting estimates so may be manipulated

Not as objective as first glance

**Each point worth 1 mark however if well explained can give 2**

**Part b**

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2016 | 2015 | Competitor |
| Return on capital employed | 66,000/(144,400 +81,000)  29% | 45,300/(96,000 +81,000)  26% | 32% |
| Gross profit margin | 230,850/461,700  50% | 121,500/324,000  37.5% | 45% |
| Inventory days | 67,500/230,850  107 | 56,700/202,500  102 | 65 |
| Trade Receivables | 54,000/461,700  43 | 27,000/324,000  30 | 30 |
| Trade payables | 51,300/230,850  81 | 33,750/202,500  61 | 50 |
| Current ratio | 121,500/116,100  1.05 | 83,700/56,700  1.48 | 1.7 |
| Quick ratio | 54,000/116,100  0.47 | 27,000/56,700  0.48 | 0.8 |
|  |  |  |  |
| **1 mark for each ratio** | **That has been correctly** | **Calculated 14 marks** |  |

**Part c**

The sales revenue of Smart Services Ltd has increased by 42% indicating a rapid increase in sales.

Return on capital employed has therefore increased even though more non-current assets have been acquired. This shows the business is profitable and has not had to reduce prices to expand.

In effect gross profit margins have increased and are now above the industry average.

It is still below the industry average. Maybe the age of non-current assets or high administration and distribution costs.

At present this sales increase is not matched by inventory growth but trade receivables have doubled,

Not concerned with doubling of trade receivables as matches increased sales

But need to ensure close control of collection as debtor days have increased and are above industry average. As the business expands may be worth increasing staff.

Trade payables higher than industry, need to be careful not to be a poor payer or will not have a good relationship with supplier, again extra staff may help.

There is evidence of increased reliance on short term finance as the overdraft has increased by 182% and trade payables have increased by 52%

The current ratio has declined while the quick ratio has remained unchanged.

Both these are below the competitor ratios and may indicate liquidity problems especially considering the overdraft position

The current ratio has therefore declined as inventory has not increased in line with sales and trade receivables.

This may create a problem in fulfilling future orders

Need to take out some longer term finance either share capital or loan.

**A maximum of 16 marks.**

**Up to 10 marks can be given for obvious statements eg comparing with last year and average**

**But the final 6 marks should only be given if student offers advice “take out a loan” or offers an explanation/comparison “ trade receivable increase matches sales increase so not concerned”**

**(d)**

Cash inflows and outflows occur when a money is paid out or received by the organisation

Profits are calculated on the accruals principle

Income and expenses are recognised when they are earned and incurred not when cash flows in or out of a business.

So income is matched with the expenses incurred in generating that income.

**Up to 5 marks**

Trade receivables represents cash not received from customers even though sale recognised

Trade payables represent cash not paid to suppliers

Any discussion of cost of sales calculation

Any discussion that acquired non-current asset for cash would not go through income statement, discuss depreciation

**Up to 5 marks**

**Maximum 10 marks**

Question 2

***Direct costs*** of a cost object are those that are related to a given cost object (product, department, etc.) and *that can be traced to it in an economically feasible way.*

**Indirect costs** are related to the particular cost object but cannot be traced to it in an economically feasible way.

***Variable costs*** vary in direct proportion with activity (i.e., change in total in proportion to changes in the related level of total activity or volume).

***Fixed costs*** remain constant over wide ranges of activity (i.e., do not change in total for a given time period despite wide changes in the related level of total activity or volume).

**3 marks for each definition 12 marks**

**(b) Product cost**

Direct material 280

Direct Labour 110

Direct Expenses 30

Prime cost 420 **4 marks**

Production 1 135 **3 marks**

Product 2 112 **1 mark**

Product cost 667 **Total 11 marks**

Production 1

Overheads per machine hour £162,000/27,000 hours = £6

Overheads allocation to interactive rower £6 x 18,000 = £108,000

Overhead per interactive rower £108,000/800 rowers = £135

Production 2

Overheads per rowing machine £224,000/2,000 = £112

**Part c**

The pricing mechanism is governed by the laws of demand and supply. Demand is the amount of a good and service demanded at a particular price. Supply is the amount of a good or service that is supplied at a given price. For demand in general if price increases the quantity demanded will fall. For supply if price increases the amount supplied will increase. The market price is where demand meets supply. Where the price is above this there will be an excess of supply and lack of demand will reduce price to sell. From a firm viewpoint price above equilibrium stock will be unsold as customers buy cheaper substitutes.

Price below equilibrium excess demand, margins too low or loss made suppliers leave, price goes back up. From firm- can sell all but will not miss out on potential profit.

Suitable diagram

**1 mark for each point with 1 mark for a diagram Maximum 8 marks**

**(No need to relate to scenario but good if do)**

**(d)**

Life cycle likely to be 2 years of patent and then competitors can compete

Increased suppliers after 2 years will push price down

If only supply of a new product at beginning of life cycle will have high demand and can charge a premium price.

Demand may well be inelastic so an increase in price will not reduce quantity demanded

On launch need to quickly recoup any patent cost R&D costs

Company may have other development costs on products that never make it market to recoup

Also need to recover other period costs. Any price well in excess of £660 accepted

**Only 3 marks if don’t relate to scenario and just discuss life cycle**

**Can give up to 2 marks for each point if explained maximum 7 marks**

**(e)**

When making a decision in short term only consider costs and revenue that change **1 mark**

This is sales price and variable costs **1 mark**

The difference between sales price and variable cost is contribution **1 mark**

If the contribution is positive then by making the product some of the fixed costs of the business are being paid

Without the product these would not be paid and the business would make less profit, until the fixed costs can be reduced in the long term.

Therefore in short term decision making ignore the fixed cost. **3 marks**

In Rio Ltd if Treadmills are discontinued there is no alternative use for the facility and fixed costs would have to be paid

Also if R&D did develop a more profitable treadmill it would be expensive to re-commence production

So closing the production line may limit future profits for Rio Ltd

**3 marks**

Contribution : £780 – (£420+£220+£40) = £100 **3 marks**

Do not discontinue **1 mark**

**13 marks available maximum**  **12 marks**

**Question 3**

1. Break even point

£360,000/(£20-£8) = 30,000 visitors **4 marks**

(b)Desired profit of £120,000

£360,000 +£120,000/£12 = 40,000 visitors **4 marks**

(c)Margin of safety

Margin of safety is the excess of planned or actual sales above the break-even point. This gives the owners of the business an indication of how sensitive to a change in sales the profit is. How likely it is to slip below break-even point. Comfort as to continued profitability

Actual sales 40,000 (40,000x20) 800,000

BEP 30,000 (30,000x20) 600,000

Margin of safety 10,000 200,000

**2 marks for explanation 3 marks for margin of safety in units and 3 marks for margin of safety in £’s TOTAL 8 marks**

**(d)** Pricing strategy

Operate a number of different prices: price discrimination

Off peak tickets

Family, junior, and OAP discount

Late entry tickets

**1 mark for each relevant point maximum 4 marks**

(e) Payback and NPV

Net present value is the aggregate of a set of cash inflows and outflows forecast to take place at future dates, discounted to present value. Present value is the discounted value at the present time of cash flow expected to arise in the future. **3 marks**

Payback period is simple and unsophisticated investment appraisal technique that involves estimating the length of time it will take for cash flows to cover the initial investment outflow.

**3 marks**

(f)

Payback Period Surf centre Year 0 Initial outlay 130,000 Year 1 net cash inflow (0) 130,000 Year 2 (50,000) 80,000 Year 3 (60,000) 20,000 Year 4 (60,000)

In year 4 if Cash flows in evenly at £5,000 per month it will take a further 4 months to repay outlay.

**4 marks**

The payback period is 3 years and 4 months

Payback Period Scuba diving centre Year 0 Initial outlay 60,000 Year 1 net cash inflow (30,000) 30,000 Year 2 (30,000) nil

The payback period is 2 years **2 marks**

Netpresent value surf centre

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cash flow | Discount rate | Present value |
| Year 0 | (130,000) | 1 | (130,000) |
| Year 1 | nil | 0.943 | 0 |
| Year 2 | 50,000 | 0.890 | 44,500 |
| Year 3 | 60,000 | 0.840 | 50,400 |
| Year 4 | 60,000 | 0.792 | 47,520 |
| Year 5 | 70,000 | 0.747 | 52,290 |
| Net present value |  |  | 64,710 |

**6 marks**

Netpresent value scuba centre

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cash flow | Discount rate | Present value |
| Year 0 | (60,000) | 1 | (60,000) |
| Year 1 | 30,000 | 0.943 | 28,290 |
| Year 2 | 30,000 | 0.890 | 26,700 |
| Year 3 | 10,000 | 0.840 | 8,400 |
| Year 4 | 10,000 | 0.792 | 7,920 |
| Year 5 | 25,000 | 0.747 | 18,675 |
| Net present value |  |  | 29,985 |

**6 marks**

**Total for f 18 marks**

**(g)**

If object is get the cash back quickly then scuba centre

But the project that gives a greater return is Surf centre

The payback period does not take into account time value of money but effectively does give more weight to earlier cash flows

Payback has favoured the scuba centre as the surf centre receives a greater part of income later and although overall more profitable it has been ignored

5 years is not an unreasonable time to predict but still uncertainity. As uncertainty which is greater further into future look . Perhaps this would favour the scuba centre.

Directors should look at estimates and perhaps undertake some sensitivity analysis if prefer to go with surf centre.

**Can give 2 marks for explained points with a maximum of 6**