**Exam Paper 1 Answers**

**Question 1**

(a)

A popular business vehicle is to start a business as a limited company.

A business is incorporated it becomes a legal entity in its own right and can sue or be sued.

If the business gets into financial difficulties the creditors do not have recourse to the owners private assets.

The owners liability is limited to the capital they have invested in the company.

The owners of the company are given shares/equity in the company in return for the funds they invest.

These shares in private limited companies cannot be bought and sold on the stock exchange but there can be a private transfer.

The benefits of incorporation are limited liability but the costs include registration and complying with company law which requires annual published accounts.

A plc can sell shares direct to the public and have greater regulation.

**8 points maximum 6 marks**

(b) Accruals

Expenses are matched to the revenues that they help generate.

Expenses, costs , income and revenue are accounted for when they are earned or incurred not when cash flows in or out of the company **4 marks**

Non- current assets – Cost is on the statement of financial position

Each year depreciation is taken off the cost and treated as an expense in the income statement

That part of the cost of the asset has been match with the revenues it has helped to generate in that time period

EG asset £90,000 three year life. £30,000 as an expense each year and the asset on statement of financial position will be £90,000, £60,000, £30,000 and 0

Profits – cost of sales is calculates as

Opening inventory + purchases – closing inventory.

By making this adjustment the same number of units are in sales as are in cost of sales.

Numeric example

Sales includes all items sold in the time period regardless of whether cash has been received or not.

**Not all points need to be made maximum of 5 for non-current/profit only 8 marks**

**Part (b) 12**

2015 2014

ROCE ( 48,600/256,500+148,500) 12% 10.5% **3**

Net asset turnover (405,000/256,500+148,500) 1.0x 1.16x **3**

Gross profit margin (89,100/405,000) 22% 22% **3**

Operating profit margin (48,600/405,000) 12% 9% **3**

Current ratio (72,900/67,500) 1.08:1 1.6:1 **3**

Interest cover (48,600/4,725) 10.3x 20X **3**

Gearing (148,500/256,500) 58% 5% **3**

**21**

Introduction

Company expanding

Profitability

ROCE gone up from 10.5 -12% which represents a 15% improvement

This can be explained by looking at net turnover and operating profit margin.

The operating profit margin has improved from 9% - 12%

The improved profit margins explains the increase in ROCE

As the asset turnover has reduced slightly to 1X from 1.16X.

This may have been expected if the company has acquired more assets for the expansion but not yet generated the revenue

Gross profit has remained the same for both years

Liquidity

The liquidity position judged by current ratio has fallen from 1.6 to 1.08.

This is very low and is a cause for concern

The main reason for the reduction In liquidity is the bank balance reducing from 13,500,000-1,350,000

Gearing

The company has an increased gearing level from 5.3% - 36.7%. This is because of the increase in debentures issued to finance the expansion.

The gearing level is not too high and the company can afford the interest payments of 10%.

As the interest cover still stands at 10.3X

But if the company requires more finance for the expansion should issue share

Conclusion

This year profitability has increased slightly with the expansion but in the short term this has led to reduced liquidity and a higher level of gearing which bring increased business risks.

**Marks award 1 mark for each point made up to a maximum of 11**

**Question Total 50 marks**

**QUESTION TWO**

Absorption costing is the way a business will be able to obtain the production cost for its output, that is the direct costs plus indirect production overheads

***Product costs*** are those costs that are attached to the products and therefore included in the inventory (stock) valuation. The product cost will be:

Direct Materials X Direct Labour X Other Direct Expenses X Prime cost X Indirect production costs (overheads) X Product cost X

***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.*

**Prime cost** the accumulation of all the direct costs

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

**(9 marks)**

***(b)***

***Period costs*** are non-manufacturing costs such as training, advertising and invoice (debt) collection. Period costs are *not* attached to the products and are *not* included in the inventory (stock) valuation. All period costs will be recorded as an expense in the current accounting period.

£15,000 advertising is a period cost.

£16,000 marketing and attending trade fair is a period cost **(6 marks)**

**(c)**

Overheads for production centre 1 should be allocated on labour hours

Overhead 26,000 = £2 per labour hour **2 marks** Labour hours 13,000

Overheads for production centre 2 should be allocated on machine hours

Overhead 40,590 = £3.30 per machine hour **2 marks** Machine hours 12,300

Overheads for department 3 should be allocated on units of production

Overhead 9,975 = £1.75 per unit of production  **2 marks** units of production 2,500 +3,200

Tennis Game £

Direct costs 5.80 **1 mark**

Overhead 1 £2 x 2 hours 4.00 **2 mark**

Overhead 2 £3.30 x 3 hours 9.90 **2 mark**

Overhead 3 1.75 **1 mark**

Product cost 21.45 **1 mark**

Flight simulation game £

Direct costs 6.30 **1 mark**

Overhead 1 £2 x 2.5 hours 5.00 **2 mark**

Overhead 2 £3.30 x 1.5 hours 4.95 **2 mark**

Overhead 3 1.75 **1 mark**

Product cost 18.00 **1 mark**

**Total 20 marks**

**(d)**

Market based pricing the price is determined by laws of supply and demand

Demand The amount of a good or service that a consumer is willing and able to buy at a set price at a given point in time. For most goods if the price of a good goes up there will be less demand.

Supply The amount of a good or service that producers are willing and able to sell at a set point in time. For most suppliers if the price goes up more will be supplied.

The market price will be the point where the demand and supply curve intersect, this is the market equilibrium

If the price is set any higher than Market Price supply will outstrip demand forcing suppliers to cut their price

If the price is any lower than Market price demand will outstrip demand and customers will be forced to pay more for the goods and services.

Market pricing is relevant for those goods and services where there are a large number of buyers and sellers, with lots of similar products.

As Morris Ltd is in a very competitive industry there is likely to be well functioning market place and Morris Ltd will have to look at the market and pitch the price in line with similar games.

If there are many close substitutes Morris Ltd will be facing an elastic demand curve and a price that is higher than that in the market place will result in a more than proportionate fall in demand.

If Morris Ltd can distinguish its product and it is unique then a premium price may be charged at least on the games introduction to the market, as similar games enter the market the price will then have to be reduced.

By charging a premium price when a game is introduced development costs can be re-couped. This pricing would align to life cycle costing where the price will change.

But in the games market the innovation and competition will be intense and it is unlikely a premium price can be held for long before reverting back to market pricing.

Cost plus pricing or absorption pricing based on the level of overheads is dangerous as the overheads are high and it is important that they are allocated realistically or a profitable product may look unprofitable.

A price could be set out of line with the market causing excess stock or lower margins than those that could be obtained.

Market pricing should be recommended.

**15 marks**

**Total 50 marks**

**QUESTION THREE**

(a)

***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).

Contribution is sales price – variable costs Contribution is the amount a product can contribute to the fixed costs and profits of a business, Contribution only considers the costs and revenues that change when making a decision.

**2 marks each 6 marks**

(b)

When making a decision in the short-term and a company has surplus capacity, if a project makes a positive contribution it will help pay the fixed costs of the business and help generate profits.

A project looked at in isolation with fixed costs allocated to it may be unprofitable but as those fixed costs are to be paid in full by the business regardless of whether a project is accepted.

It is better to consider each project /division in terms of contribution and then deduct fixed costs in total.

This takes the arbitrary allocation of fixed costs out of decision making.

**4 marks**

**(c)**

Luther has spare capacity and so need to consider the contribution made on the order.

Variable costs: £

Direct material 180,000

Direct labour 240,000

Total variable cost 420,000

Variable cost per unit £420,000/30,000 rucksacks = £14

Sales price for French order £82,500/5,000 rucksacks = £16.50

Contribution = sales price – variable cost.

Contribution = £16,50-£14 = £2.50

Total contribution £2.50 x 5,000 = £12,500

As the contribution is positive the project should be accepted.

Proof

Profits without order: £

Sales £25x 30,000 = 750,000

Costs (540,000)

Profit 210,000

Profit with order

Sales £25 x 30,000 750,000

£16,50 x 5000 82,500

Total sales revenue 832,500

Variable costs £14x 35,000 (490,000)

Fixed costs (120,000)

Profit 222,500

Extra £12,500 which is extra contribution

**4 Marks for calculating extra contribution 3 marks for original profit and 3 marks for new profit**

**Total 10 marks**

(d) The costs that change are relevant: £

Sales value 82,500 **1 mark**

Less variable cost 5,000 x £14 (70,000) **1 mark**

Less additional fixed costs (10% x 120,000) (12,000) **2 marks**

Less lost contribution £25-£14 x 300 (3,300) **2 marks**

Contribution (2,800)

As contribution is negative do not accept order **2 marks**

**Total 8 marks**

**(e)**

Cost of investment 350,000

Year 1 (120,000-40,000) (80,000)

270,000

Year 2 (150,000-45,000) (105,000)

165,000

Year 3 (150,000-45,000) 105,000

60,000

Year 4 cash flow 120,000 if cash flow is even throughout the year it will take 3 years and 6 months to payback the capital invested **6 marks**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Cash flow | Discount factor | Discounted  Cash flow | **Marks** |
| 0 | (350,000) | 1 | (350,000) | **1** |
| 1 | 80,000 | 0.926 | 74,080 | **1** |
| 2 | 105,000 | 0.857 | 89,985 | **1** |
| 2 | 105,000 | 0.794 | 83,370 | **1** |
| 4 | 120,000 | 0.735 | 88,200 | **1** |
| 5 | 100,000 | 0.681 | 68,100 | **1** |
| 6 | 100,000 | 0.630 | 63,000 | **1** |
|  |  |  | 116,735 | **1** |

**Total marks 14**

(f) Both methods would lead to acceptance of the project

The payback method shows the outlay will be repaid in 3 years and 6 months. Generally an acceptable time frame.

As the NPV has a positive cash flow it indicates the project is acceptable for the company’s cost of capital.

Both rely on estimates of future cash flows which may not be reliable especially the further into the future estimates are made.

Payback is quick and simple, it does give weight to earlier cash flows but ignores the time value of money

Npv uses all cash flows and takes into account time value of money. But it is only as reliable as estimates. Does not state what actual return on capital is.

Npv is more complicated

**8 marks**

**Total 50 marks**