**Finance and law Exam Answers Paper 2**

**Question 1** **Marks**

(a)***Assets***

Assets are resources that are controlled by an entity as a result of a past transaction that are expected to bring economic benefits, (generate profits). Assets can be split into two categories: Non-current assets – are to be owned for longer than 12 months. Land &building Current assets – owned at the reporting date but are to be used by the business to make profits in the next 12 months. Eg Inventory

***Liabilities***

A liability is an obligation of an entity arising from a past event the settlement of which involves the transfer of resources, (an amount owing by the business). Liabilities can be split into categories: Non- Current – the payment of liability is due after 12 months Bank loan Current – the payment of the liability is due within the next 12 months. Trade payable

**For each definition 2, for extra explanation 1.5,for example 1 Max for each 4.5** **9 marks**

(b)

|  |
| --- |
| Shareholding |
| Owner with voting rights |
| Dividend no guarantee of payment |
| No security  Ltd liability no recourse to assets |
| Shares not generally re-purchased |
| Will be last for repayment entitled to residue |
| Shareholding may appreciate or depreciate in value |

**2 marks for any of the above or any other sensible suggestion Maximum 8 marks**

(c) Profits are an accounting concept defined by accounting rules Profits based on accruals principle Costs and revenues are recognised as they are earned and incurred not as cash flows in or out of organisation The profit shows the economic reality of how the business is performing An example of accruals principle is the treatment of cost of sales and calculation of gross profit Opening inventory and purchases are added together and closing inventory deducted. This ensures quantity sold is matched with quantity purchased and the profit is based on margins and not related to differing quantities The cash represents actual cash flows into and out of an organisation. When a business starts or is expanding more cash will go out than come in. As extra machinery, raw materials, staff need to found. In time this will translate to extra profits but there will be a time lag. A business needs to recognise this and obtain appropriate finance

**12 points here the cost of sales example can be explained numerically. Most points worth one mark if explanation very strong award 2 marks example 3 marks Maximum 10 marks**

(d)

Return on capital employed Operating profit 193,020 116,920 Equity + Non-current liabilities 273,391 +108,000 239,910 +56,700

193,020 51% 116,920 40% 381,391 296,610

Gross Profit Margin Gross profit 265,660 69% 170,660 62% Turnover 386,100 275,940

Operating profit margin Operating profit 193,020 50% 116,920 42% Turnover 386,100 275,940

Asset Turnover Turnover 386,100 275,940 Equity + Non-current liabilities 273,391 +108,000 239,910 +56,700

386,100 1.01x 275,940 0.93x 381,391 296,610

**3 marks for each ratio calculated 12 marks**

(e)

The business looks successful

ROCE very high if invested £100 would receive £50. This type of return is normally associated with high risk so would want to know more about the business risk.

The high ROCE is solely explained by the excellent margins obtained. Gross profit is 69% having risen from previous year 62% How are the company able to charge such a high price is it a premium for the state of art technology. Will this be lost

Operating profit margins are also high 50% and 42 % indicating good control over costs. They too are improving Is that due to economies of scale or more efficient operations.

The asset turnover isn’t so good only 1X and 0.9x. This can be explained as a new business with heavy investment in assets. The assets are at high value as current market value with little depreciation. There is often a time lag between investment in non-current assets and revenue being generated. Would not be unduly concerned.

Comment on dividend is that source of income why not reinvested Decision as to invest or not

**18 points outlined above 1 mark for each other relevant comments accepted Maximum 11 Marks**

**Question 2**

***(a)***

***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 **3 marks**

***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.* **3 marks**

**Indirect costs** are related to the particular cost object but cannot be traced to it in an economically feasible way. **3 marks**

(b)Prime Costs

Planes Cars

Direct materials 15.00 12.00

Direct Labour ([2hrs@£9.50](mailto:2hrs@£9.50)) 19.00 ([1.5hrs@£9.50](mailto:1.5hrs@£9.50)) 14.25

Direct expenses 3.50 2.80

Prime cost 37.50 29.05

**3 marks each Total 6 marks**

(c)

Rent and rate apportion on area

£55,000/20,000 = £2.75 per square metre £

Planes £2.75 X 8,000 22,000 Cars £2.75 x 10,000 27,500 Canteen £2.75 X 2,000 5,500 55,000 **4 marks**

Repairs and maintenance apportion on number of call out

£18,000/180 = £100 per call out £

Planes £100 x 75 7,500 Cars £100 x 85 8,500 Canteen £100 x 20 2,000 18,000 **4 marks**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Planes | Cars | Canteen |
| Rent and rates | 22,000 | 27,500 | 5,500 |
| Repairs | 7,500 | 8,500 | 2,000 |
|  |  |  |  |
| Total | 29,500 | 36,000 | 7,500 |

**3 marks**

Canteen costs = Direct cost £20,500 and production overheads £7,500 = £28,000 **1 mark**

This cost needs to be re-apportioned to production department on basis of no. of employees

£27,500/50 = £550 per employee

Planes £550 x 30 £16,500 Cars £550 x 20 £11,000 £27,500 **4 marks**

|  |  |  |
| --- | --- | --- |
|  | Planes | Cars |
| Overheads from above | 29,500 | 36,000 |
| Canteen costs | 16,500 | 11,000 |
| Total overheads | 46,000 | 47,000 |
| Number of units | 1,852 | 2,360 |
| Overhead per unit | 24.84 | 19.92 |

**2 marks for total and 2 marks for absorption 4 marks**

Product Cost

Planes Cars £ £ Prime cost 37.50 29.05 Overheads 24.84 19.92 Total cost 62.34 48.97 **2 marks**

**Total for part ©22 marks**

**As question does not tell students how to apportion overheads only deduct 1 mark in each section if incorrect basis is used**

Accept any price which states that it allows for non-manufacturing overheads and a profit margin **3 marks**

**Total 25 marks**

(e) 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 below this there will be an excess of demand and supplier will enter the market and current supplies will increase production. This will lead to a price fall. If price is above the equilibrium there is an excess supply and manufactures will reduce production until the price rises.

**11 points, the points could be represented in diagram form. Any additional relevant points to be given credit maximum 10 marks**

**Question Total 50 marks**

**Question 3**

(a) Contribution is sales price – variable costs The amount that remains after deducting variable cost from sales revenue **1 mark**

Contribution – fixed cost = profit. **1 mark**

The fixed costs must be met in the short term. If spare capacity and no other alternatives projects should be accepted, product lines maintained and components made in house if they make a positive contribution to fixed costs and profits. This is because fixed overheads are related to products on an arbitrary basis and apply to business as a whole rather than one particular product line. A positive contribution will help cover these fixed costs and hence increase the profitability of the business as a whole. **4 marks Total for part (a) 6 marks**

(b) Segways Skateboards Bikes

Sales Price 65.00 40.00 142.00 Direct materials 25.00 12.50 55.00 Direct labour 14.00 7.50 40.00 Direct expenses 5.00 3.00 15.00 Contribution 21.00 17.00 32.00

**1 mark for correct sale price 1 mark for direct costs so 2 for each product 6 marks**

(c) Order would appear to be loss making sales revenue £49- cost £57 = loss £8 per Segway But the order would make appositive contribution sales revenue £49 – variable cost (25+14+5) = £5 per Segway so order should be accepted as surplus capacity in short term**. 3 marks**

Profitability of business

Segways Skateboards Bikes Total

Sales Price (2,000@£65) 130,000 (1,000@40) 40,000 (500@£142) 71,000 Less Direct materials (2,000@25) (50,000) (1,000@12.50) (12,500) ([500@ 55.00](mailto:500@55.00)) (27,500) Direct labour (2,000@14.00) (28,000) (1,000@ 7.50) (7,500) (500@ 40.00) (20,000) Direct expenses (2,000@5.00)(10,000) (1,000@3.00) (3,000) ( 500@ 15.00) (7,500) Contribution 42,000 17,000 16,000 75,000 Fixed costs 13 x 2,000 (26,000) 6X 1,000 (6,000) 26x500 ( 13,000) Profit before order accepted 30,000

**7 marks**

*Alternatively Use contribution calculated in (b)*

*Contribution (21 x 2,000) 42,0000 (17x 1,000) 17,000 ( 32x 500) 16,000 75,000*

Profitability after accepting order

Segways Skateboards Bikes Total

Sales Price (2,000@£65) 130,000 (1,000@40) 40,000 (500@£142) 71,000 Order (300@£49) 14,700 Less Direct materials (2,300@25) (57,500) (1,000@12.50) (12,500) ([500@ 55.00](mailto:500@55.00)) (27,500) Direct labour (2,300@14.00) (32,200) (1,000@ 7.50) (7,500) (500@ 40.00) (20,000) Direct expenses (2,300@5.00)(11,500) (1,000@3.00) (3,000) ( 500@ 15.00) (7,500) Contribution 43,500 17,000 16,000 76,500 Fixed costs 13 x 2,000 (26,000) 6X 1,000 (6,000) 26x500 ( 13,000) Profit after order accepted 31,500

**3 marks**

*Alternatively*

*Profit before order 30,000 Extra contribution £5 x 300 1,500 Profit after acceptance 31,500*

Other factor: Will price need to be available to other customers, is order likely to lead to future orders from this customer at market price **2 marks**

**Total for part (b) 15 marks**

(c) As there is an alternative course of action the opportunity cost of the alternative forgone needs to be considered. **1 mark**

If spare capacity was diverted to skateboards 100 extra skateboards would generate a contribution of £17 x 100 = £1,700 **1 mark**

Contribution of accepting order £5 x 300 = 1,500 Less opportunity cost (1,700) (200) **2 marks**

As this is a loss the order should not be accepted and the business should produce additional skateboard **1 mark**

**Total marks for part (d) 5 marks**

(e)

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.

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.

**6 marks**

(f)

Payback Period Year 0 Initial outlay 600,000 Year 1 net cash inflow (150,000-30,000) (120,000) 480,000 Year 2 (200,000-20,000) (180,000) 300,000 Year 3 (200,000-20,000) (180,000) 120,000

In year 4 if Cash flows in evenly at £20,000 per month it will take a further 6 months to repay outlay.

The payback period is 3 years and 6 months **4 marks**

Netpresent value

|  |  |  |  |
| --- | --- | --- | --- |
|  | Cash flow | Discount rate | Present value |
| Year 0 | (600,000) | 1 | (600,000) |
| Year 1 | 120,000 | 0.926 | 111,120 |
| Year 2 | 180,000 | 0857 | 154,260 |
| Year 3 | 180,000 | 0.794 | 142,920 |
| Year 4 | 240,000 | 0.735 | 176,400 |
| Year 5 | 160,000 | 0.681 | 108,960 |
| Net present value |  |  | 93,660 |

**6 marks**

The payback period is acceptable and the NPV is positive

so the project should be accepted. **2 marks**

**Total marks 12**

**Question total 50**