**Question 1**

**Business analysis — Investment ratios**

Three companies Lambert plc, Ferguson plc and Smith plc have the following equity structures.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Ordinary Shares £1 each** | **10% Preference Shares** | **5% Debentures** |
|  | £ | £ | £ |
| Lambert plc | 1,500,000 | 300,000 | 200,000 |
| Ferguson plc | 800,000 | 800,000 | 400,000 |
| Smith plc | 1,200,000 | 400,000 | 400,000 |

1. From the above information:
2. calculate the gearing ratio for each company **3**
3. state which company’s ordinary shareholders would benefit most if profits increased substantially and give a reason for your answer **2**
4. At 31 December Year 1 each company:
5. earned an operating profit of £300,000
6. paid corporation tax at a rate of 20%
7. retained £50,000 profit within the business

You are required to **calculate** for **each** company:

1. profit available for distribution to ordinary shareholders **3**
2. total dividend paid to ordinary shareholders **3**
3. dividend cover **1**
4. ordinary dividend per share **3**
5. earnings per share **3**
6. The market price of each ordinary share at 31 December Year 1 was as follows.

|  |  |
| --- | --- |
| Lambert plc | £1·50 |
| Ferguson plc | £2·25 |
| Smith plc | £1·75 |

You are required to calculate for **each** company:

1. price/earnings ratio **3**
2. dividend yield **3**

**Total marks** **(24)**

**Question 1 — solution**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| (a) (i) | Equity Gearing Ratios | | | Preference Shares + Debentures | | | | | | |  | |
|  |  | | | Ordinary Share Equity | | | | | | |  | |
|  |  |  |  |  | | |  |  | | |  | |
|  |  | LAMBERT |  | FERGUSON | | |  | SMITH | | |  | |
|  |  |  |  |  | | |  |  | | |  | |
|  |  | 300,000 + 200,000 |  | 800,000 + 400,000 | | |  | 400,000 + 400,000 | | |  | |
|  |  | 1,500,000 |  | 800,000 | | |  | 1,200,000 | | |  | |
| **(1)**  **(1)**  **(1)**  **3** |  |  |  |  | | |  |  | | |  | |
|  |  | 0·33:1 |  | 1·.5:1 | | |  | 0·67:1 | | |  | |
|  |  |  |  |  | | |  |  | | |  | |
| (a) (ii)  **2** |  | * Ferguson's shareholder would benefit most if there was an increase in profits. * The large percentage of low interest debentures and preference share equity makes more profit available to fewer ordinary shareholders. * Ferguson plc is highly geared. | | | | | | | | |  | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (b) | Profit available for distribution to each company | | | |  |  |  | |
|  |  |  |  |  |  |  | |  |
|  |  | LAMBERT |  | FERGUSON |  | SMITH | |  |
|  |  | £ |  | £ |  | £ | |  |
|  | Operating Profit | 300,000 |  | 300,000 |  | 300,000 | |  |
|  | Less Debenture Finance Cost | 10,000 |  | 20,000 |  | 20,000 | | **(1)** |
|  | Profit for the Year before Tax | 290,000 |  | 280,000 |  | 280,000 | |  |
|  | Less Corporation Tax (20%) | 58,000 |  | 56,000 |  | 56,000 | | **(1)** |
|  | Profit for the Year after Tax | 232,000 |  | 224,000 |  | 224,000 | |  |
|  | Less Preference Dividend | 30,000 |  | 80,000 |  | 40,000 | | **(1)** |
| (i) | Profit Available for Distribution to Ordinary Shareholders | 202,000 |  | 144,000 |  | 184,000 | |  |
|  | Less Unappropriated Profits | 50,000 |  | 50,000 |  | 50,000 | | **(1)** |
| (ii)  **4** | Total Dividend Paid to Ordinary Shareholders | 152,000 |  | 94,000 |  | 134,000 | |  |
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| (iii) | Dividend Cover | | | Profit for the Year after Tax – Preference Dividend | | | | |
|  |  | | Dividends paid on Ordinary Shares | | | | | |  |
|  |  | | | | | |  |  |  |
|  |  | LAMBERT | | |  | FERGUSON |  | SMITH |  |
|  |  |  | | |  |  |  |  |  |
| **(1)**  **(1)**  **(1)** |  | 202,000 | | |  | 144,000 |  | 184,000 |  |
| **3** |  | 152,000 | | | 94,000 | 134,000 |
|  |  |  | | |  |  |  |  |  |
|  |  | 1·33 times | | |  | 1·53 times |  | 1·37 times |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| (iv) | Dividend Paid per Ordinary Share | Total Dividend Paid | | |  |  |  |
|  |  | Number of Ordinary Shares | | |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | LAMBERT |  | FERGUSON |  | SMITH |  |
|  |  |  |  |  |  |  |  |
| **3**  **(1)**  **(1)**  **(1)** |  | 152,000 |  | 94,000 |  | 134,000 |  |
|  |  | 1,500,000 |  | 800,000 |  | 1,200,000 |  |
|  |  |  |  |  |  |  |  |
|  |  | 10·1p |  | 11·8p |  | 11·2p |  |

|  |  |  |  |  |  |  |  |  |
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| (v) | Earnings per share | | Profit for the Year after Tax – Preference Dividends  Number of Ordinary Shares Issued | | | | |  |
|  |  |  | |  |  |  |  |  |
|  |  | LAMBERT | |  | FERGUSON |  | SMITH |  |
|  |  |  | |  |  |  |  |  |
| **3**  **(1)**  **(1)**  (**1)** |  | 202,000 | |  | 144,000 |  | 184,000 |  |
|  |  | 1,500,000 | |  | 800,000 |  | 1,200,000 |  |
|  |  |  | |  |  |  |  |  |
|  |  | 13·47p per share | |  | 18p per share |  | 15·33p per share |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (c) (i) | Price Earnings Ratio | | Market Price  Earnings per Share | | | |  | |
|  |  |  | |  |  |  | |  | |  |
|  |  | LAMBERT | |  | FERGUSON |  | | SMITH | |  |
| **3** |  |  | |  |  |  | |  | |  |
| **(1)**  **(1)**  **(1)** |  | £1·50 | |  | £2·25 |  | | £1·75 | |  |
|  |  | 13·47p | |  | 18p |  | | 15.33p | |  |
|  |  |  | |  |  |  | |  | |  |
|  |  | 11·14 times | |  | 12·5 times |  | | 11·41 times | |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| (c) (ii)  X 100 | Dividend Yield | | Ordinary Dividend per Share | | |  |  | |
|  |  | | Market Price per Share | | |  | |  | |  |
|  |  | |  | | |  | |  | |  |
|  |  | LAMBERT | |  | FERGUSON |  | | SMITH | |  |
|  |  |  | |  |  |  | |  | |  |
| **3**  **(1)**  **(1)**  **(1)** |  | 10·1p x 100 | |  | 11·8p x 100 |  | | 11·1p x 100 | |  |
|  |  | £1·50 | |  | £2·25 |  | | £1·75 | |  |
|  |  |  | |  |  |  | |  | |  |
|  |  | 6·73% | |  | 5·24% |  | | 6·34% | |  |

**Total marks (24)**